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ABSTRACT

A study was conducted to assess the feasibility of operating an internship program to increase the number of talented women and minority educational researchers and to encourage the pursuit of fresh educational research related to their special concerns. The study focused on women and minority junior faculty (assistant professors, lecturers, and instructors) at four-year colleges and universities in the Mid-Atlantic region (Delaware, District of Columbia, Maryland, New Jersey, New York, and Pennsylvania). Study objectives were to locate women and minority faculty in the appropriate fields (education and social sciences); identify their training needs and interests; contact senior researchers interested in working with the program; identify and evaluate existing internship programs; and develop an internship training model for women and minority junior faculty. The needs assessment also provided data on junior faculty training and experience and desired training, constraints on participation, and personal suggestions for a model program. The Internship Identification Survey catalogued important program characteristics as well as shortcomings and difficulties in existing internship programs. Senior researchers committed to working with junior faculty and to assisting in their advancement provided valuable comments and commitment to participate in an internship program like the model program. A literature review and procedures and results of the study surveys are included. (SW)

EDUCATIONAL RESEARCH INTERNSHIP FOR WOMEN AND MINORITY JUNIOR FACULTY

• A FEASIBILITY STUDY

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ED167004

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CHAPTER I

INTRODUCTION

For a variety of reasons, women and minorities are at present underrepresented in the field of educational research. Barriers exist that function to exclude well qualified persons from active participation in advanced research and from research that embodies the perspectives and interests of these same people.

From among the interventions available to solve this problem, Higher Education Resource Services (HERS, Mid-Atlantic), which has pioneered training initiatives for both minority and non-minority women faculty and administrators, has chosen to explore the potential impact of mid-career internships for carefully selected mid-level junior faculty. The term "junior faculty" includes the positions of assistant professor, lecturer, and instructor. "Mid-career," as used in this study, refers to the four year period prior to tenure.

In 1977 the National Institute of Education (NIE), recognizing the acknowledged value of mid-career internship programs for minorities and women (Blake & Williams 1977), funded HERS Mid-Atlantic to conduct a feasibility study for a one-year internship program for junior faculty in the social sciences and education. On the basis of this feasibility study, it seems evident that one promising solution to the professional development and advancement problems of junior faculty would be the availability of mid-career internships if these are combined with specific research skills training and extensive opportunities for professional networking. Bringing persons together at regular intervals for professional training, combined with direct access to established social science researchers, creates the conditions necessary for professional advancement. In the case of professional researchers, it is paramount that the interaction include the production and dissemination of research.

The HERS Mid-Atlantic feasibility study was designed to lead to the formulation of a high quality internship model directed toward at least five interns per year. The study focused on women and minority junior faculty (assistant professors, lecturers, and instructors) at four-year colleges and universities in the Mid-Atlantic region (Delaware, District of Columbia, Maryland, New Jersey, New York, and Pennsylvania).

Specifically, the study assessed the feasibility of operating an internship program to increase the number of talented women and minority educational researchers and to encourage the pursuit of fresh educational research related to their special concerns. Objectives of this study were to:

1) locate women and minority junior faculty in the appropriate fields.
2) identify their training needs and interests.
3) contact senior researchers interested in working with the program.
4) identify and evaluate existing internship programs.
5) develop an internship training model for women and minority junior faculty.

The internship, as conceived prior to the feasibility study, had three primary goals:

1) to bring new research talent into the mainstream of educational research.
2) to integrate the interns into the existing network of educational research staff, funding agencies, and institutes.
3) to establish ties among the women and minority interns for a new network of educational researchers interested in research on women and minority issues.

As originally conceived in the proposed internship program, junior faculty chosen as interns would be placed with outstanding senior researchers on a continuing research project within established research-oriented institutes, agencies, or college departments with strong research components. In addition to placement and its attendant financial compensation, the one-year program would offer an intern funds to travel to a professional meeting and invitational seminars led by outstanding researchers in particular specialties, an opportunity to collaborate on presentations and a publication, advanced training in research skills, experience in writing proposals, and assistance in trying to obtain funded research work at the conclusion of the internship. The feasibility study was intended to elaborate and refine this original conception of the internship model.

HERS Mid-Atlantic has accomplished the basic objectives of the feasibility study. The Caucus and Department Chairperson Surveys helped to publicize the proposed internship and identified junior and senior faculty who might participate in the program. The Junior Faculty Survey assembled a sizable target group that has indicated a tremendous need and desire for an internship program. This needs assessment also provided data on junior faculty training and experience and desired training, constraints on participation, and personal suggestions for a model program. The Internship Identification Survey catalogued important program characteristics as well as shortcomings and difficulties in existing internship programs. Finally, senior researchers committed to working with junior faculty and to assisting in their advancement provided valuable comments and commitment to participate in an internship program like the model program.

This first introductory chapter is followed by a review of the literature. The next chapter deals with the general procedures followed in the Feasibility Study. Chapter four presents the specific procedures, results, and conclusions from the Caucus and Chairperson Surveys, the Junior Faculty and Internship Identification Surveys, and the Senior Researchers' Working Conference. The fifth chapter highlights the HERS Mid-Atlantic strategy for increasing the number of women and minorities in educational research and describes the proposed internship model. Finally, conclusions, the significance of the study, and plans for dissemination of the results are discussed in the last chapter.

CHAPTER II

REVIEW OF LITERATURE

Introduction

Though there has been extensive discussion of the status of minority and women faculty and researchers in the literature, little has been written about the training needs, career paths and other concerns of these persons. A recent review on management training needs conducted by Research for Better Schools corroborates this viewpoint and indicates that training needs of minorities and women are rarely examined together (Brown, Aul & Clark 1978).

Status of Minorities in Educational Research

While research, development and dissemination efforts in education have grown tremendously in the past two decades, the underrepresentation of women and ethnic/racial minorities is obvious: 1) less than 3 percent of minorities between the ages of 20 and 24 have entered the field of educational research, 2) less than 1 percent of the research published in education is generated by minorities, and 3) during NIE's first two years, 1971-73, less than 1 percent of its funds were distributed to women and minorities (Blake & Williams 1977). According to an AERA survey, minorities represent about 7 percent of their total membership (Lipman-Blumen et al. 1975).

A strong relationship has been found between holding a research assistantship and accepting a research position. Fewer minority persons with doctoral degrees in education accept postdoctoral positions in research than Caucasians. Asians constitute a special case: they accept postdoctoral research employment with or without prior research assistantship experience more frequently than do Caucasians. However, minority women were less likely than minority men to accept postdoctoral research positions (Blake & Williams 1977). Blake and Williams indicate that a multiplicity of social forces contributes to the lower participation of minorities and women in educational research: 1) socialization, 2) admission practices, 3) economic constraints, 4) lack of incentive, 5) exclusion from research networks, 6) inequities in proposal reviewing, 7) funding patterns and fiscal policies, 8) employment patterns, and 9) domination by conventional researchers.

In May 1977 NIE sponsored a planning conference to increase the participation of minorities and women in educational R&D. Asians, Blacks, Hispanics, and Native American women along with non-minority women, identified the specific problems, addressed the most commonly encountered concerns, and suggested solutions. Regardless of women's backgrounds, common barriers discourage women from research and impede their professional progress. These barriers are: inappropriate recruitment and counseling, less research

training, family and cultural pressures undermining motivation, and a predominance of male faculty that excludes women from the mentor relationship and the "old boy" network. Barriers persist during the professional years as women face male-dominated institutional policies, absence of support services, inflexible schedules, resistance to recognizing relevant non-academic experience, and institutional failure to encourage faculty involvement with women students. The minority women identified additional barriers: culture and family tradition, poor quality secondary education, and language (Stivers & Leckie 1977).

While similarities between minority women and non-minority women exist, they each have their special needs and concerns. Most Asians seem to prefer the sciences and engineering. The 1970 census indicated that in the United States, twice as many Chinese women as Caucasian women complete college, but few major in the field of education. Those in educational research, according to Chiang (1977), tend to be nonassertive and isolated. She suggests Asians need wider visibility and participation and identification with other Asian educational researchers to provide support for their special research concerns.

Pollard (1977) determined that few published works on Black female professionals exist and decided to learn more about Black women in educational research through the interview process. The notion that Black women are in a favored position when it comes to hiring is a myth (Epstein 1973; Pollard 1977). In fact, Galloway (1975) indicates Black women are lowest on the totem pole with respect to utilization, power, tenure, and promotion. Furthermore Pollard found that Black women are not taken seriously as professionals, are labeled as aggressive if they pursue their goals, and lack financial support and peer networks. Her recommendations for action are to: 1) conduct more research about Black women, 2) identify Black women in educational R&D to facilitate communication and build a network, 3) survey the actual status of Black women, and 4) launch a meaningful affirmative action program.

The exact number of Hispanic faculty members is unknown (Burciaga 1977). In the case of Chicanos, only about 50 individuals possess the doctorate. Hispanic female faculty members are under great pressure to respond to Hispanic student academic and personal counseling needs and to institutions' needs for Hispanic student recruitment. Female Hispanics, she notes, have been labeled as nonaggressive and have had little opportunity to receive sponsorship and become part of a network. Burciaga makes the following suggestions for ameliorating these problems: 1) identify Hispanic educational researchers to build a network for disseminating knowledge and training opportunities, 2) fund research about female Hispanics and their special concerns, 3) fund principal investigators as an incentive for mentoring and conducting research, 4) develop acceptable alternative methodologies, and 5) involve female Hispanics on committees and boards of professional organizations.

In the case of Native Americans, it is counterproductive to dwell upon the low number of female researchers and their lack of published works when all Native Americans comprise less than one percent of the total population (Medicine 1977). According to Medicine, professional organizations have identified isolated PhD's in a few fields, such as anthropology, psychology, social work, Indian studies, folklore, and library science. As with other minorities, great pressure is exerted upon these few Native Americans to serve "their people," yet they are subject to criticism in the traditional sense. A study conducted by the American Association for the Advancement of Science (AAAS) reported that the aggressive behavior necessary in research becomes a burden to American Indian women since they have been socialized otherwise (Malcolm et al. 1976). Native American females have many needs and problems to overcome. Medicine identified the most immediate need to be the formation of a roster of American Indian women with PhD or EdD degrees in all types of institutions. Additionally, Native American females need role models, more research skills training and career path counseling, and a network system.

To summarize, Burciaga, Chiang, Medicine, Pollard (Stivers & Leckie 1977) offer some solutions to the identified problems and barriers minority women face in advancement. They stress the need for support of research on special concerns and alternate methodologies, for establishment of peer networks, and for placing minorities in positions of authority to serve as mentors and role models. Specialized training, career counseling, and placing minority women on significant committees and boards of professional organizations are recommended as well.

Status of Women in Educational Research

Over the past 40 years there has been a decline in the percent of female fulltime instructional faculty. Forty years ago women constituted 27% of the fulltime instructional staff. In 1950 this proportion had dropped to 24%, in 1960 to 22%, and in 1971 to 19.9% (Kilson 1976). In 1976, 24.2% of faculty were women, most of whom were instructors and assistant professors (Vetter & Babco 1976). The proportion of tenured women dropped from 44% in 1971-72 to 27% in 1974-75, while the proportion of tenured men only decreased from 59% to 57% (Kilson 1976). Furthermore, less than 10% of women faculty are full professors, while 24.5% of men faculty are full professors (Bayer 1970).

A similar pattern has been documented regarding salary differentials between men and women. "In four-year institutions during 1959-60 the median salary for women was 84.9 percent of the median salary for men; in 1965-66, 83.4 percent; in 1971-72, 82.5 percent; and in 1974-75, even lower" (Kilson 1976, p. 937).

Tidball (1976) indicates a male-research-prestige triumvirate dominates and sets the tone in the academic world. Those men who

are themselves at research-oriented institutions rate their success higher than men at teaching-oriented institutions--this according to a survey by the American Council on Education (ACE). The same survey also shows that both women and men are more supportive of students of their own sex. Since 98% of enrolled women attend such male-dominated research institutions, it follows that these women are unlikely to profit from the same close interaction with mentors available to male students.

Juanita Kreps (1976) suggests a number of changes needed to improve women's status. Postdoctoral women will have to invest more time in research; move to institutions where salaries are higher and move more frequently; and request administrative posts, provided research and writing can be maintained to ensure full professorships. Kreps indicates that even with these suggested changes, the probability of improving the status of women becomes lower as colleges retrench.

In 1975 AERA conducted a study of its female membership to determine whether or not women's participation differed from men's (Lipman-Blumen et al. 1975). It was found that 36.3% of the women listed teaching as their primary responsibility, 11.9% listed research, and 5.1% indicated management of R&D as their prime responsibility. About the same percent of male members was involved in research, but males were more likely to be involved in R&D management and administration. The AERA study showed only slight differences in productivity between men and women.

In general, the building of visibility for and the integrating of women and minorities in the educational research community is one recommendation suggested by a large number of investigators concerned with the advancement of minorities and women. The correlation between the number of women faculty and the number of women students who become career achievers has been strongly established (Niedermeyer & Kramer 1974). Yet the scarcity of role models for women in education continues to reinforce stereotypes (Schlossberg 1974). Women in general need to develop mentor relationships with older researchers for the sake of "professional socialization" (Ekstrom 1977). These relationships will help rising young women researchers to tie into the mentor system and "old boy" network from which they would otherwise more likely be excluded (Stivers & Leckie 1977).

Earned Doctorates - Women and Minorities

In some respects the status of women faculty was more favorable 40 years ago than it is today in spite of the increased number and percentage of doctorates being earned by women. Table 1 depicts an historical summary of earned degrees conferred.

From 1939-40 through 1969-70 the percentage of doctorates earned by women varied between 10-13% of the total number of doctorates awarded. During the more recent period of 1975-76, however, the

total number of doctorates increased considerably, and the percentage earned by women rose dramatically to 23%. [1]

Although exact parallels cannot be drawn, it is worth noting that the percentage of instructional staff who were women was 27% in 1939-40 and 24.2% in 1975-76 (see p. 6) in spite of the fact that the number of women with doctorates and the percentage of doctorates awarded to women have both increased significantly.

TABLE 1

Doctorate Degrees Conferred: United States

	1939-40	1949-50	1959-60	1969-70	1975-76
Total	3,290	6,420	9,829	29,866	34,064
Men	2,861	5,804	8,801	25,890	26,267
Women	429	616	1,028	3,976	7,797
Percentage Doctorates Earned by Women	13%	10%	10%	13%	23%

Source: National Center for Education Statistics, Digest of Education Statistics (1978).

The percentage of all doctorates awarded minorities in 1975-76 increased slightly compared with Whites and when compared with minorities in 1974-75 (Table 2). A similar pattern is apparent for doctorates in the fields of education and social science. The percentage awarded to minorities in 1975-76 increased slightly in comparison with Whites over the previous year. The social sciences showed a percentage decrease for Blacks and Puerto Ricans, while the percentage for Whites increased. However, without more historical data,[2] it is premature to make projections or to draw any conclusions.

[1] The number of doctorates earned by women was 429 in 1939-40, 616 in 1949-50, 1028 in 1959-60, 3976 in 1969-70, and 7797 in 1975-76. The number of doctorates earned by men was 2861 in 1939-40, 5804 in 1949-50, 8801 in 1959-60, 25,890 in 1969-70, 26,267 in 1975-76.

[2] Historical data on minorities recorded in this form is available beginning with 1974-75.

TABLE 2

Percentage of Doctorates Awarded in All Fields, Education, and Social Sciences by Sex, Race/Ethnic Group

	1974-75			1975-76		
	All Fields	Educ.	Soc. Sci.	All Fields	Educ.	Soc. Sci.
Men	78.1%	68.8%	74.6%	76.7%	67.2%	73.7%
Women	21.9	31.2	25.4	23.3	32.8	26.3
White	79.8	81.9	83.3	79.5	80.6	83.9
Black	3.6	8.8	3.5	3.9	9.1	3.4
Amer.Ind.	.4	.7	.4	.4	.7	.5
Chicano	1.1	1.2	.8	1.2	1.3	.9
Puer.Ric.	.2	.2	.3	.2	.4	.2
Oriental	6.6	2.2	3.4	6.4	2.1	3.5
Other	.2	.1	.1	.2	.1	.1
Unknown	8.1	4.8	8.2	8.1	5.7	7.7

Source: National Center for Education Statistics, Digest of Education Statistics (1977, 1978).

Projected Enrollment and Instructional Staff

The status and problems of women and minorities have been reviewed, along with information on internships as a strategy for training and promoting these persons. Examining figures on projected student enrollment and estimated demand for instructional staff in higher education is now in order. The following discussion is based upon projective statements and statistical tables from the latest data prepared by the National Center of Education Statistics.

The introductory statements made indicate:

1) Small annual reductions in elementary school enrollment for the next five years.
2) Small annual decreases in high school enrollment to continue at least until the mid-1980's.
3) Some further growth in higher education, with enrollments leveling off in the early 1980's.
4) Declines in total number of 18-24 year old students after 1981.
5) Trends to larger classes in higher education as a means of reducing costs.

The demand for fulltime instructional staff in institutions of higher education began decreasing about 1976 (Table 3). Between 1976-80, 207,000 additional faculty will be needed compared with 139,000 during the years 1981-85. A number of factors are influencing this projected decline. While attrition (retirement

TABLE 3

Estimated demand for full-time-equivalent instructional staff in institutions of higher education: United States, fall 1970 to 1985

[In thousands]

Year (fall)	Full-time-equivalent instructional staff[1]	Additional full-time-equivalent instructional staff needed		
		Total	For increased enrollment and changes of student-staff ratio	For replacement
(1)	(2)	(3)	(4)	(5)
1970	451	...	...	...
1971	468	34	7	27
1972	485	24	−3	27
1973	492	34	7	27
1974	479	45	17	28
1975	515	68	38	29
1971-1975	...	202	64	138
		Projected		
1976	528	44	13	31
1977	540	44	12	32
1978	550	42	10	32
1979	556	39	6	33
1980	561	38	5	33
1976-1980	...	207	46	161
1981	563	36	2	34
1982	563	34	0	34
1983	556	27	−7	34
1984	545	22	−11	33
1985	532	20	−13	33
1981-1985	...	139	−29	168

[1] The estimates and projections of additional full-time-equivalent professional staff for increased enrollment and for reduction of the student-staff ratio were computed as the difference between the total full-time-equivalent professional staff employed in 2 successive years.

The projection of additional full-time-equivalent professional staff for replacement of those leaving the profession, temporarily or permanently, was estimated at 6 percent of the total full-time-equivalent professional staff employed in the previous year.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, details may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Numbers and Characteristics of Employees in Institutions of Higher Education*, fall 1968 and 1967, (2) *Teaching and Research Staff by Academic Fields, Fall 1969*, (3) unpublished data from survey on employees in institutions of higher education, fall 1970, and (4) *Numbers of Employees in Institutions of Higher Education, Fall 1972*.

Source: National Center for Education Statistics.

TABLE 4

Estimated demand for full-time-equivalent instructional staff in institutions of higher education, based on a low alternative replacement rate: United States, fall 1970 to 1985

[In thousands]

Year (fall)	Full-time-equivalent instructional staff[1]	Additional full-time-equivalent instructional staff needed		
		Total	For increased enrollment and changes of student-staff ratio	For replacement
(1)	(2)	(3)	(4)	(5)
1970	451	...	...	...
1971	458	27	7	20
1972	455	18	−3	21
1973	462	27	7	20
1974	479	38	17	21
1975	515	58	36	22
1971-1975	...	168	64	104
		Projected		
1976	528	36	13	23
1977	540	36	12	24
1978	550	34	10	24
1979	556	31	6	25
1980	561	30	5	25
1976-1980	...	167	46	121
1981	563	27	2	25
1982	563	25	0	25
1983	556	18	−7	25
1984	545	14	−11	25
1985	532	12	−13	25
1981-1985	...	96	−29	125

[1] The estimates and projections of additional full-time-equivalent professional staff for increased enrollment and for reduction of the student-staff ratio were computed as the difference between the total full-time-equivalent professional staff employed in 2 successive years.

The projection of additional full-time-equivalent professional staff for replacement of those leaving the profession, temporarily or permanently, was estimated at 4.5 percent of the total full-time-equivalent professional staff employed in the previous year.

NOTE.—Data are for 50 States and the District of Columbia for all years. Because of rounding, details may not add to totals.

SOURCES: U.S. Department of Health, Education, and Welfare, National Center for Education Statistics, publications: (1) *Numbers and Characteristics of Employees in Institutions of Higher Education*, fall 1986 and 1987, (2) *Teaching and Research Staff by Academic Fields, Fall 1968*, (3) unpublished data from survey on employees in institutions of higher education, fall 1970, and (4) *Numbers of Employees in Institutions of Higher Education, Fall 1972*.

Source: National Center for Education Statistics.

and replacement) affects the total figure, declining enrollments and student-staff ratios appear to be the critical determinants. During the years 1976-80, the demand for additional staff because of increased enrollment/student-staff ratio will be 46,000, while during the period 1981-85 demand is projected to decrease below zero to a minus 29,000.

An even more pessimistic picture emerges when a low alternative replacement rate is projected (Table 4). During 1981-85 only 96,000 new staff will be needed compared to 167,000 in 1976-80, which is 43,000 fewer than projected in Table 3 where replacement rate was not considered.

Women and minority junior faculty face an increasingly competitive market with projected declining enrollments, decreasing faculty replacement rates, and the recent increase in the mandatory retirement age to 70. The problem may be exacerbated as more senior professors elect to remain in the system, thus freeing fewer tenured line positions for junior faculty. Furthermore, a pattern of diminishing financial support for R&D is emerging. The National Center for Education Statistics (1978) reports a decrease in federal funds for R&D in higher education and nonprofit institutes between 1976-77. The National Science Foundation (NSF) alone realized almost a $4 million decrease between 1975-1977. While research performers in other sectors and in some disciplines realized an absolute increase in federal funds appropriated during these years, the increase generally was not commensurate with the rate of inflation.

For all of these reasons, combined with the larger percentage of doctorates being earned by women, it becomes evident that increased efforts should be launched to provide women and minorities with the additional expertise and access to research networks that will give them the competitive edge in obtaining those tenured research positions that are still available in higher education. At the same time, the scarcity of such research positions within higher education must be faced.

Therefore, it is important to provide women and minorities with the training and experience to open up new career options, both inside and outside of education. The sociologist, for example, desiring to remain in academe should--with the appropriate training and experience--be able to transfer the latest research skills to tasks within offices of institutional research and planning, development, admissions, and evaluation and assessment. Conversely, those social scientists who perceive careers outside of higher education as more desirable can gain valuable research skills and experiences applicable to the demands of industry, business, and public and private research institutes.

Internships

While internships in educational research constitute one familiar strategy for including new constituencies in the growth of R&D, no comprehensive review or evaluation of internship programs in the literature was found. The Blake and Williams (1977) review as part of a study to increase the participation of minorities and women in educational research indicates that the mid-career internship has proven to be an excellent investment when attention is given to: 1) careful selection and matching of mentors, 2) ongoing communication between sponsor and agency, 3) regular meetings with interns, 4) required reporting, and 5) incentives for both intern and mentor. Stecklein (1967) directed a post-doctoral mid-career internship in institutional research where interns, selected on the basis of potential advancement, developed their own projects and attended professional meetings and joint seminars in specific skill areas. The Institute for Afro-American Studies (1973) and Norton (1966) stress the importance of careful selection of interns. McAdoo (1974) and South West Laboratory (1970) underline in their internship reports sensitivity to minority perspectives, the importance of support systems and networking, and concern for attitudes, values, and practice. And finally, Hofstetter (1967) and Norton (1966) rate a model, consisting of intensive lectures in research design and statistics and flexible personalized programs involving interns in planning, as a more effective strategy than the in-service training model. One can conclude from the literature that no internship program can insure job placement; but access to new networks, published directories, and follow-up meetings have in the past aided job placement and advancement.

Kanter and Wheatley (1978), in an evaluation of five training programs funded by the Carnegie Corporation, indicate that carefully selected senior women benefit from the prestige of being connected with prestigious individuals. Both formal and informal support systems are needed by persons to advance. Opportunities on the job for developing skills, gaining visibility, and demonstrating creativity and problem-solving ability are critical, as

is access to information, senior networks and senior mentorships. Among Kanter and Wheatley's recommendations are specific skills training, network formation within geographic areas (such as the HERS Mid-Atlantic projects and the ACE National Identification projects provide), and production of materials that may be used at other sites within defined areas. While women's networks are important, women must also have access to those persons (primarily still men) in decision-making positions.

Special Problems of Minorities and Women

The general intervention outlined above is especially appropriate to the needs of minorities and women in educational research because it acknowledges the need to bring them into direct personal contact with individuals already well established in the social science and educational research communities, and to bring their special research interests and perspectives to the attention of these same persons. Whereas affirmative action programs and the widespread discussion of the issues involved have served to open up the formal avenues of professional development and advancement, they have done comparatively little to change the actual status of minorities and women.

A number of problems are apparent. First, minorities and women are underrepresented in the tenured faculty and in both research and management of R&D positions. According to Shaw (1977), institutions of higher education employ more minorities and women with doctorates than do government, social agencies or industry; yet, even within institutions of higher education, minorities and women are found disproportionately clustered in the lower faculty and administrative ranks. As colleges retrench because of economic factors, declining enrollments, and higher retirement ages, fewer junior faculty--regardless of race or sex--will secure senior positions.

Second, in universities where research is equated with prestige, women carry heavier teaching loads and publish less than men (Tidball 1976). Bayer and Astin (1975) indicate that 33% of a male faculty member's time per week is spent on research compared with 14% of a female's time.

Third, there is an insufficient number of trained minority persons and women in research, development and dissemination, so they are unable to contribute possible solutions to major problems in education of particular concern to them. Additionally, there is a need for fresh approaches and new methodologies that will be accepted by traditional researchers and refereed journals. The knowledge and research generated by social scientists in anthropology, economics, political science, psychology, and sociology should be applied to and provide an interdisciplinary approach to problems in educational research.

Fourth, an insufficient number of minorities and women are in leadership and management roles in R&D. Of the women members of the AERA, for example, only 5.1% are in R&D managerial positions (Lipman-Blumen et al. 1976). Opportunities for grantspersonship as well as managerial training and experience are needed.

Fifth, minorities and women have had few role models and mentors during their graduate and working years and generally are outside the research networks. Access to these networks must be created and maintained and mentors developed.

Sixth, many minorities and women either do not possess adequate research competence and grantspersonship experience, or their technical knowledge needs updating through opportunities for practical application. Providing intensive training in research coupled with other key ingredients will increase the quality of educational research produced.

Summary

The review of the literature on internships, the status and problems of faculty and researchers, projected enrollment, and demand for instructional staff has revealed the need for: 1) establishing mid-career internships for women and minorities, 2) conducting research studies on women and minorities and their special concerns, and 3) undertaking a comprehensive study of internship programs. These are the needs that HERS Mid-Atlantic has addressed in conducting the Feasibility Study.

CHAPTER III

GENERAL PROCEDURES

Introduction

A variety of research techniques has been employed in the Feasibility Study, and the following separate but related steps were undertaken:

1) Mail survey of women and minority junior faculty in four-year colleges in the Mid-Atlantic region.
2) Mail survey of chairpersons in appropriate disciplines.
3) Mail survey of women's and minority caucuses in appropriate professional organizations.
4) Mail and telephone survey of relevant programs throughout the country.
5) Working conference of senior social science and educational researchers.
6) Pre- and post-project planning/evaluation.
7) Preparation, publication, and dissemination of a Final Report.

Identification of Survey Population

Several methods were used to locate and survey by questionnaire women and minority junior faculty in education and related disciplines who are in four-year colleges and universities in the Mid-Atlantic region:

1) A random sample from a comprehensive listing of faculty in appropriate disciplines compiled by an educational list company was used. Faculty received a questionnaire and a letter explaining the feasibility study and proposed internship. If tenured, they were asked to pass the questionnaire to a female or minority junior faculty member in their department or related discipline.

2) All appropriate departmental chairpersons received a memo seeking their assistance in locating female and minority junior faculty and asking them to pass the questionnaire to such persons. Chairpersons were also asked to identify senior researchers and existing internship programs.

3) In one state system more accurate lists of women and minorities were obtained from cooperating officials. A complete list of women faculty was provided by another state official.

4) Affirmative action, economic opportunity, and women's studies officials, and the women's membership list of AERA were other sources used in the identification process.

Instrumentation and Data Collection

Four survey instruments were developed for use in the Feasibility Study. A copy of each instrument appears in Appendix A. Detailed procedures are described under the main elements of the study appearing in Chapter IV. The surveys were designed to determine the present status and research training needs of potential interns, discover the common characteristics of successful internship programs, and learn what special factors should be built into an internship designed especially for minorities and women in educational research. The Feasibility Study Project Team (Appendix C) composed of researchers and administrators from a number of institutions, met in November 1977 at the Educational Testing Service (ETS) to plan the details of the Feasibility Study. The project team continued to assist in the study throughout the year, particularly in the development and revision of the Junior Faculty Questionnaire (JFQ).

The JFQ was a self-administered instrument composed of multiple choice and open-ended items. It was sent to the identified junior faculty members beginning in January 1978. The questionnaire continued to be sent out throughout the spring as new potential junior faculty interns were located or personally requested a copy of the survey instrument.

Another instrument was developed and sent to chairpersons in the social sciences and education. They were asked to assist in the identification of minority and women junior faculty, to recommend senior researchers who might be interested in working with interns, and to mention any existing or previously existing internship program that HERS Mid-Atlantic could contact. Included was a description of the proposed internship program plus a copy of the JFQ that the chairpersons were asked to pass on to appropriate junior faculty.

With the third instrument women and minority caucus representatives in professional societies and other special interest groups were surveyed and asked to cooperate in locating junior faculty. The list was compiled from HERS Mid-Atlantic resources, THE CHRONICLE of Higher Education, directories, and from recommendations of interested agencies and individuals. The caucus representatives responded to a short questionnaire designed to obtain their ideas regarding the research training needs of members of their group and female and minority colleagues, as well as the names of senior researchers and existing internship programs.

A fourth questionnaire was used in the mail and telephone survey of existing internships. HERS Mid-Atlantic relied upon the project's resources, the Blake and Williams 1977 report, including a summary of NIE-funded programs, data from the survey questionnaires, and information provided by other interested organizations and individuals to identify the internships. Initially the project director interviewed by phone and in person a number

of directors of both well established and relatively new internship programs to determine key items to be included in the mail and phone survey instruments. Other factors influencing the design and refinement of the instruments were HERS Mid-Atlantic's initial conception of an internship program, the review of the literature, and brochures sent by various internship programs.

No formal survey instrument was developed for the senior researchers. Instead, the project team contacted and corresponded with a representative group of researchers suggested by the team. They were invited to participate in a two-day working conference held in May 1978 at the University of Pennsylvania at which participants addressed various topics concerning development and implementation of an internship program.

To aid in readability and comprehension, the specific procedures used in each component of the Feasibility Study appear in the next chapter prior to the reporting of the results. This is necessary because the techniques and survey instruments employed vary considerably from one part of the Feasibility Study to another. The conclusions that are presented after each component's results relate directly to those particular findings.

CHAPTER IV

FEASIBILITY STUDY COMPONENTS

Four main components comprised the Feasibility Study:

1) Junior Faculty Survey
2) Caucus and Department Chairpersons' Surveys
3) Internship Identification Survey
4) Senior Researchers' Working Conference

For each component, this chapter describes the procedures, reports the results, and offers recommendations for the design of a model internship program in educational research.

Junior Faculty Survey

Procedures

Identifying the relevant population for the survey of junior faculty in the Mid-Atlantic region proved to be difficult. The final list of names to which the questionnaire was sent was compiled from a commercial listing and augmented through extensive individual networking, contacts with institutions and state departments of education, responses to articles in professional newsletters, and considerable library research. Approximately 2950 questionnaires were sent out, and a total of 458 usable surveys was returned.

To get an accurate picture of the response rate, two factors must be taken into consideration. First, although the listing was purportedly updated every three months, about 50 questionnaires were returned by the post office for lack of correct address. Second, the listing did not distinguish between junior and senior faculty. Because of this, many questionnaires were actually sent to senior faculty members. Though they were asked to pass the survey on to their junior faculty colleagues, responses indicate that few actually did so. By subtracting 50 from the overall total of questionnaires sent and multiplying the result by the proportion of non-tenured faculty at universities and four-year colleges (.432*), a response rate of 37% for these surveys likely reaching junior faculty members emerges.

*This figure was found by first calculating the absolute number of total faculty and non-tenured faculty at public and private universities and four-year colleges throughout the United States and then dividing the non-tenured by the total faculty sum. The source of the data is: National Center for Education Statistics, Salaries, Tenure, and Fringe Benefits of Full-Time Instructional Faculty in Institutions of Higher Education, 1975-76 (Washington: U.S. Government Printing Office, 1972), pp. 18-22.

The questionnaire for the Junior Faculty Survey was designed to:

1) Determine the present career profiles of junior faculty, particularly of minority persons and women, in the Mid-Atlantic region.
2) Establish a pool of potential intern candidates.
3) Discover the areas where training and experience are most needed and desired.
4) Evaluate the level of interest on the part of junior faculty in such a program.
5) Determine how much research is being conducted by junior faculty members on women's and minority issues.
6) Gather information on possible future mentors and placement institutions.
7) Build a data base on women and minority persons for further research.

The questionnaire (see Appendix A) asked respondents to provide general information on their personal background and on their home institution. Information on their academic field, training, experience, and research activity was also sought. Those surveyed were asked to indicate their general interest in participating in the proposed program, the particular internship experiences and training they desired, and any constraints they might have in applying. Finally, the survey requested respondents to identify other internship programs with which they were familiar and any potential senior faculty mentors who might be willing to cooperate with the proposed program.

Results

Almost all respondents to the junior faculty questionnaire were located at colleges in the Mid-Atlantic region. The few respondents from outside this area received their questionnaires for the most part either from a Mid-Atlantic recipient of the original survey or through their own solicitation of a questionnaire directly from HERS Mid-Atlantic. Such private solicitation accounts for a very small presence of professional and community college respondents in the survey.

Most respondents reside in New York, Pennsylvania, or New Jersey. This result corresponds to the greater number of institutions of higher education in these states. Table 5 shows the percentage of four-year institutions surveyed in the District of Columbia and each of the five states of the Mid-Atlantic area. The unusually high figure for Delaware is the consequence of having received responses from two of the three four-year institutions in the state. Pennsylvania was especially well covered due to the cooperation of persons in the Pennsylvania State University system and in the Pennsylvania State Department of Education. For the Mid-Atlantic region as a whole, coverage extended to 36% of all four-year institutions. This figure reflects the conscious elimination of a large number of professional schools from the

sample (primarily theological schools, special training institutes, and technical colleges, particularly in the New York metropolitan area).

TABLE 5

Percent of Four-Year Institutions Surveyed in the Mid-Atlantic Region

Delaware	67%
District of Columbia	22
Maryland	33
New Jersey	37
New York	29
Pennsylvania	50

Table 6 indicates that respondents were overwhelmingly female (91.7%) and primarily in their 30's (31-40 years=48.7%), though a sizable group was younger (20-30 years=29.7%). Minority respondents represented 25.8% of total responses, with the following groups included: Blacks (16.8%), Native Americans (3.1%), Asians (3.1%), Hispanics (1.7%).

TABLE 6

Personal Background Characteristics

Sex		Age		Race	
Female	91.7%	20-30	29.7%	Asian	3.1%
Male	5.5	31-40	48.7	Black	16.8
		41-50	16.8	Caucasian	73.6
		51-60s	4.1	Hispanic	1.7
				Nat.Am.	3.1
				Other	1.1

In the area of employment background (Table 7), over 90% of respondents held the rank of instructor or assistant professor and concentrated on teaching (88.9%), research (38.4%), and counseling (23.1%). A very small percentage (3.9%) was tenured, but this group appears to represent a small minority of long established faculty at state teachers colleges who probably received their permanent status many years ago when master's degrees were sufficient qualification. While not "junior" in general teaching and perhaps administrative experience, this group was nevertheless left in the sample because these persons seemed to lack the same research skills and experience as the rest of the sample population. Interestingly enough, this group expressed considerable interest in participating in the proposed internship program. Of all those surveyed, 42.6% had been at their present institutions for four or more years, but another 23.6% had held their present positions only one year.

TABLE 7

Employment Background of Respondents

Title/Acad.Rank		Tenured		Years at Inst.		Among Responds. Two Main Resps.	
Lectr./Instr.	30.8%	Yes	3.9%	1	23.6%	Teaching	88.9%
Asst. Prof.	60.0	No	95.0	2-3	32.1	Counseling	23.1
Res. Asst.	1.5			4+	42.6	Research	38.4
No Acad.Rank	.9					Admin.	18.4
Other	5.9					Extension	1.3
						Other	13.4

Table 8 shows the academic background of respondents. They were highly qualified, with most holding either a doctorate (56.3%) or master's (38.6%). Most degrees had been conferred in the 1970's (87.1%).

TABLE 8

Academic Background of Respondents

Highest Degree		Date Degree Conferred	
BA/BS	3.9%	1950's	1.7%
MA	38.6	1960's	10.9
PhD	56.3	1970's	87.1
Other	1.1		

With regard to the characteristics of respondents' home institutions (Table 9), almost 34% of those surveyed reported working at universities, while others were located either at four-year colleges (24.7%) or colleges with graduate programs (20.7%). Appendix C contains a complete listing of respondents' home institutions. Most of the institutions were in the public sector (67.0%) and were either very large (20,000+ enrollment=26.6%) or relatively small (1501-5000 enrollment=26.0%).

TABLE 9

Institutional Characteristics

Type		Enrollment/Size		Sector	
University	33.9%	1,500 or less	13.1%	Public	67.0%
Col. + Grad.Prog.	20.7	1,501-5,000	26.0	Priv/Nondenom.	23.6
Four-Year Col.	24.7	5,001-10,000	14.4	Priv/Denom.	8.7
		10,001-20,000	17.0		
		20,001+	26.6		

Half of all respondents indicated their graduate major was in the social sciences. Table 10 shows the breakdown into the various individual disciplines. Psychology and sociology clearly predominate. Even more weight should be given to psychology, because many of the respondents reporting education majors indicated that psychology was the principal focus of their studies as well. The general picture for graduate majors in education could not, un-

fortunately, be obtained from the survey because many respondents answered the question either incorrectly or ambiguously.

Since actual candidates for admission to any internship program based on the proposed model will be required to state explicitly their graduate study backgrounds in their application forms, incomplete data for this question is not a problem. Although the responses from social scientists are more suggestive than definitive, it is valuable to cite those results. Responses in the "other" categories indicated, also with a fair degree of reliability, that those respondents who had majored neither in education nor the social sciences had concentrated for the most part in the humanities, the health field, and the physical sciences, including mathematics.

TABLE 10

Graduate Major of Respondents: Social Sciences

Psychology	18.7%
Sociology	15.1
Political Science	6.2
Economics	5.3
Anthropology	4.4
Total Social Sciences	50.0

Table 11, together with Figure 1 on page 25, shows the overall picture of respondents' answers within the broad categories of training, experience, and desired training and experience (T/E). A number of general comments are possible.

TABLE 11

Overall Training, Experience, and Desired T/E

	Training	Experience	Desired T/E
1.0-Formulating Theor.Relev.Research	66.6%	61.4%	49.1%
2.0-Formulating Policy Relev.Research	22.9	27.9	53.1
3.0-Data Collection & Research Design	43.7	36.7	27.5
4.0-Instrumentation	52.4	34.8	36.3
5.0-Data Processing	43.1	41.2	45.4
6.0-Statistics	49.6	33.5	37.7
7.0-Evaluation	41.4	46.8	49.2
8.0-Grantspersonship	10.5	36.0	61.2

In the area of 1.0-Formulating Theoretically Relevant Research, it is interesting that even though a great many respondents have had training (66.6%) and experience (61.4%), almost half of those surveyed still saw a need for training and experience.

A more consistent relationship appears regarding 2.0-Formulating Policy Relevant Research. Here the second lowest degree of

training (22.9%) and experience (27.9%) expressed in the survey was coupled with the second highest desire for such training and experience (53.1%).

For 3.0-Data Collection and Research Design and 4.0-Instrumentation, a considerable number of respondents indicated they have had training (43.7%, 52.4%). Though far fewer have had actual experience in applying what they have learned (36.7%, 34.8%), little interest was shown in pursuing either of these two areas (27.5%, 36.3%).

In the area of 5.0-Data Processing, respondents seem to split into two groups--those who have had training and experience (43.1%, 41.2%) and therefore see little need for more, and those who are unfamiliar with this field and would like assistance (45.4%). This interpretation is consistent with the fact that the demand for computer and statistical training figured prominently in respondents' own suggestions for the proposed program (see p. 30).

Regarding 6.0-Statistics, almost half of those surveyed reported at least some training. The fact that so few (33.5%) have had experience or desire it (37.7%) presents a seeming anomaly. It is possible that respondents have made little use of statistics and therefore see little need for further training in the area. This interpretation is somewhat contradicted by the many suggestions by respondents for just such training.

Another possible explanation is that those surveyed either may not have understood the statistical terminology used in the questionnaire, or they may be part of a large group of persons who are fearful or anxious about math-related training and experience.

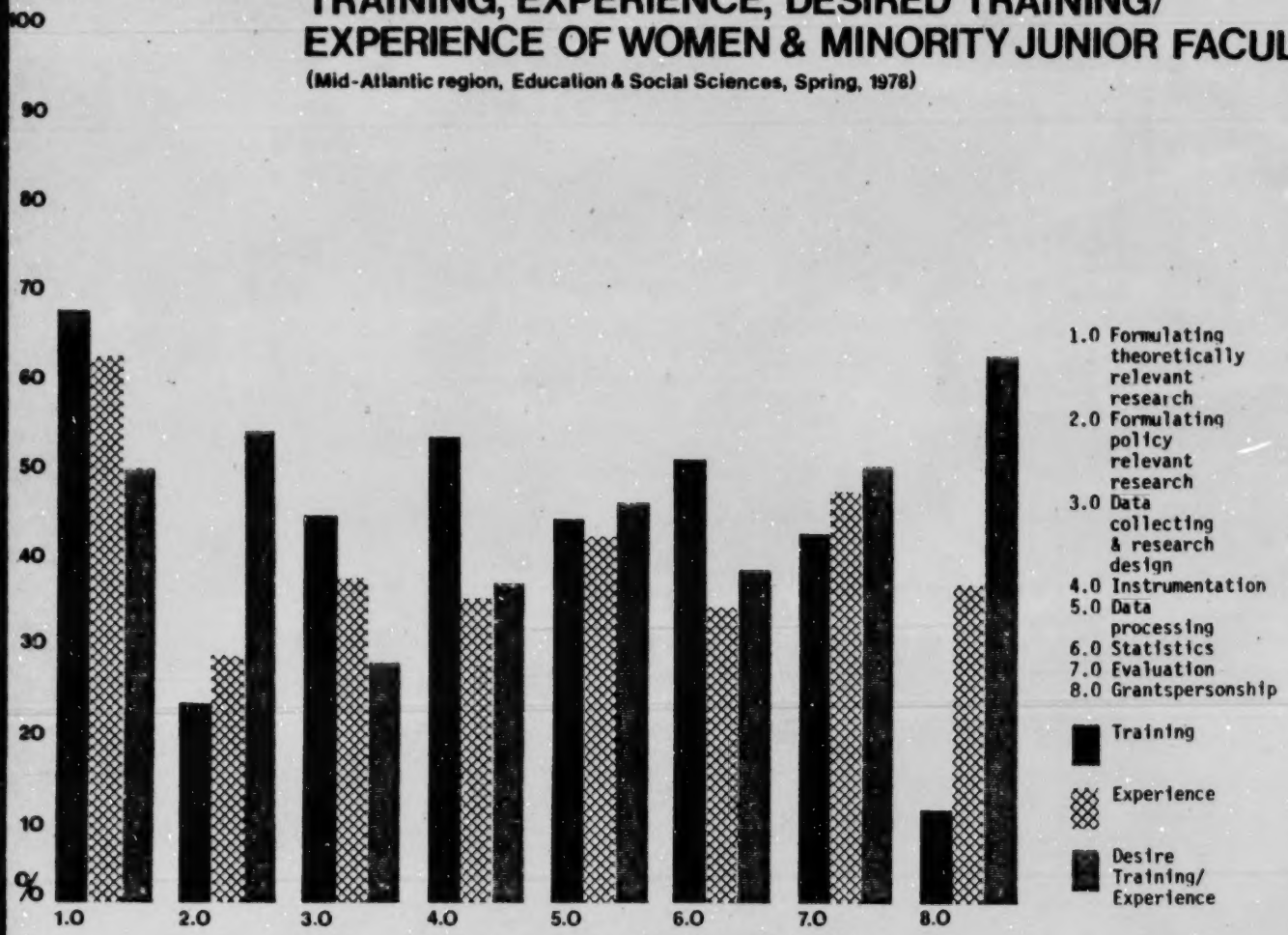
The results for 7.0-Evaluation give the impression that many respondents (49.2%) would welcome formal training in an area where they have been compelled to perform (experience=46.8%), possibly without the necessary training.

8.0-Grantspersonship was the category in which the fewest respondents by far have had training (10.5%). While more have gained some experience (36%), the overwhelming majority (61.2%) obviously saw a great need for training and experience in this area.

FIGURE I

TRAINING, EXPERIENCE, DESIRED TRAINING/ EXPERIENCE OF WOMEN & MINORITY JUNIOR FACULTY

(Mid-Atlantic region, Education & Social Sciences, Spring, 1978)



Besides the conclusions drawn from the general summary of the data from Question #14 of the Junior Faculty Survey, the detailed results give rise to a number of additional comments.

One noticeable pattern emerged with respect to the entire category of 3.0-Data Collection and Research Design (Table 12). Every item in this group figures among those items ranked lowest in desire for training and experience. This is especially interesting since the corresponding percentages for actual training and experience are low or only moderate. One can speculate that perhaps respondents viewed this whole category as too geared to basic research (e.g., 3.6 - Laboratory = 17.2%; 3.2 - Observation = 26.2%; 3.5 - Quasi-Experimental = 27.5%) and therefore too far removed from the management of research that respondents seemed to prefer. When it came to 2.0-Formulating Policy Relevant Research, those surveyed indicated a high degree of interest (53.1%), though few had had either actual training (22.9%) or experience (27.9%). Again with regard to managing research, respondents showed a strong desire for training and experience in 7.1-Design and Conducting the Project (56.1%) and 8.4-Project Direction (61.4%).

TABLE 12

Detailed Training, Experience, Desired T/E:
1.0-Formulating Theoretically Relevant Research
2.0-Formulating Policy Relevant Research
3.0-Data Collection and Research Design

	Training	Experience	Desired T/E
1.0-Form.Theor.Relev.Research	66.6%	61.4%	49.1%
2.0-Form.Pol.Relev.Research	22.9	27.9	53.1
3.0-Data Coll. & Res.Design			
3.1-Survey	52.4	49.8	28.2
3.2-Observation	49.6	43.9	26.2
3.3-Interviewing	47.6	47.4	30.1
3.4-Experimental	44.1	30.8	27.9
3.5-Quasi-Experimental	37.8	25.3	27.5
3.6-Laboratory	30.3	18.8	17.2
3.7-Field	43.9	40.6	35.2

Several items in Tables 12 and 13, including 3.1-Survey, 4.1-Sampling and Design, 4.5-Validity and Reliability, 6.1-Inferential and Hypothesis Testing, and 6.2-Measures of Relationship, give the impression that the group of junior faculty members surveyed has considerable research training and some experience, at least in the simpler research techniques. None of these aspects of research evoked a great deal of desire for training or experience.

A certain desire to move to more complex research came through suggestively in the greater interest shown in the more advanced statistical techniques (Table 13). While a great many respondents indicated training in the more basic statistical techniques of 6.1-Inferential and Hypothesis Testing (67%) and 6.2-Measures

of Relationship (60.7%), considerably fewer mentioned training in either 6.3-Multivariate Analysis (41.3%) or 6.4-Data Reduction Techniques (29.7%). A corresponding pattern emerges across the Statistics category with regard to desired training/experience. With decreased training and experience, desire for such training and experience increased. The fact that the increased desire is less than proportionate to the lack of training and experience may be another indication of respondents' possible anxiety toward math and statistics generally.

TABLE 13

Detailed Training, Experience, Desired T/E:
4.0-Instrumentation 6.0-Statistics
5.0-Data Processing

	Training	Experience	Desired T/E
4.0-Instrumentation			
4.1-Sampling and Design	61.8%	46.5%	43.9%
4.2-Item Selection	44.5	31.0	31.2
4.3-Tests and Measures	53.9	35.2	36.5
4.4-Item Analysis	43.2	26.4	35.2
4.5-Validity and Reliability	58.5	34.9	36.2
5.0-Data Processing			
5.1-Data Organiz. & Prepar.	48.0	47.2	45.6
5.2-Programming & Pkgd.Progs.	39.1	36.0	42.1
5.3-Computer Use & Applic.	42.4	40.4	48.5
6.0-Statistics			
6.1-Infer. & Hypot.Testing	67.0	46.3	35.8
6.2-Measures of Relationship	60.7	41.9	27.9
6.3-Multivariate Analysis	41.3	27.5	45.0
6.4-Data Reduction Techniques	29.7	18.3	42.4

The same pattern that emerged for the general category of 7.0-Evaluation also comes across in the individual items within the category (Table 14). In each case, experience is greater than training, but the desire for training and experience remains relatively high. One can speculate again that respondents have been compelled to participate in research evaluation without having the background they feel they need.

TABLE 14

Detailed Training, Experience, Desired T/E:
7.0-Evaluation 8.0-Grantspersonship

	Training	Experience	Desired T/E
7.0-Evaluation			
7.1-Design & Conduct Project	48.7%	51.7%	56.1%
7.2-Reporting, Presenting	46.7	52.2	46.3
7.3-Dissemination	29.0	36.5	45.2
8.0-Grantspersonship			
8.1-Reading RFPs/Grant Announc.	10.7	33.8	57.0
8.2-Proposal Writing	17.5	48.3	65.1
8.3-Proposal Budgeting	7.2	33.2	61.4
8.4-Project Direction	6.8	28.8	61.4

When one considers its individual aspects, the category of 8.0-Grantspersonship again presents this survey question's most striking results. The items in this group show the four areas of least respondent training and most respondent interest in acquiring training and experience. The conclusion is obvious that each of these aspects of Grantspersonship should find a prominent place in any research internship designed for such groups of junior faculty.

In general one can say that within the categories of 1.0-Formulating Theoretically Relevant Research, 3.0-Data Collection and Research Design, 4.0-Instrumentation, 5.0-Data Processing, and 6.0-Statistics, more respondents have had training than have had actual experience. In these categories respondents appear to have a lower interest in additional training or experience. A number of factors may account for this. Older respondents who received their training some time ago and have not used certain elements of it may not see the need for additional training in these areas. The nature of respondents' institutions may also play a role. If they work at an institution where the accent is placed on teaching rather than research, respondents may have little desire for more training or experience along these lines.

Within the categories where experience exceeds training, on the other hand, the highest desire for training and experience was recorded. Respondents, therefore, may want to acquire formal training in those areas--2.0-Formulating Policy Relevant Research, 7.0-Evaluation, and 8.0-Grantspersonship--where many of them may presently be forced to perform "beyond their depth."

A sizable portion of respondents (35.6%) mentioned having other research experience they considered relevant. Those experiences fell into the categories outlined in Table 15.

TABLE 15

Other Relevant Research Experience

Own degree-related research	7.4%
Special training/experience in research (e.g., running lab, testing, field work)	5.9
Other kinds of research (non-social science/ed)	5.7
Position as research assistant/fellow	5.2
Independent research experience	3.7
Supervision/administration of research	2.0
Other	5.7

Almost 37% of the junior faculty surveyed have done research on women's issues, with about half of these (16.3%) actually publishing (Table 16). Of the work done on women's issues, these areas were especially stressed: personal development (9.6%); career and employment (7.6%); the social context (e.g., women in the family, community, etc.) (7.2%).

TABLE 16

Research on Women's Issues

Personal development	9.6%
Career and employment	7.6
Women in the social context	7.2
Advancement of women (i.e., affirmative action, etc.)	2.4
Attitudes/perceptions of women by others	2.2
Other	6.7

A total of 28.4% of respondents have done research on minority issues, though considerably fewer have published anything in the area (10.1%). Of the research on minorities conducted by respondents (Table 17), work on Black concerns (10.3%) and studies dealing simultaneously with several different minority groups (5.5%) figured most prominently.

TABLE 17

Research on Minority Issues

Blacks	10.3%
Single study of several minorities	5.5
Children (mixed racial/cross-cultural)	2.6
Hispanics	2.0
General discrimination	2.0
Rural poor/migrants	1.1
Other	3.2

A large majority of the junior faculty respondents (72.3%) expressed a definite interest in participating in the proposed internship program (Table 18), and 26% of those surveyed took the time to offer suggestions of their own for the program. Respondents indicated a particular desire to develop contacts with government and funding agencies and with others in their field (5.9%). They also expressed a concern for developing their communications skills (writing, dissemination, public presentations) (5.5%). Even though respondents had already had an opportunity to express a desire for training in statistics and computer usage, 4.4% of them (13% of those offering suggestions) repeated their desire for such training. Finally, a number of those surveyed emphasized the active role they wanted to have in formulating their internship experiences (3.7%).

TABLE 18

Interest in Participating in the Proposed Internship

Yes	72.3%
No	4.4
Undecided	18.8

There is strong evidence respondents prefer that intern placement be targeted near their home (i.e., Mid-Atlantic area) (Table 19). Almost half (45.4%) said their participation would be affected by possible relocation, and 60.1% indicated they wanted to work within a reasonable commuting distance from home. Over half (53.8%) indicated further that they would like any commuting costs covered by the program. Within the category of "other" constraints, 3.3% of all respondents indicated they would be strictly limited to or strongly prefer some particular geographic location. Emphasis on the home was also echoed by mention of family obligations by 27.1% of those surveyed.

TABLE 19

Considerations in the Decision to Participate

Easy commuting distance	60.1%
Commuting expenses paid	53.8
Job placement assistance	47.8
Possible relocation for one year	45.4
Obtaining leave	40.4
Housing location assistance	40.0
Moving expenses paid	38.2
Family obligations	27.1
Child care service	17.4
Related services not important	16.9
No reservations	16.2
Near minority community	15.3
Questionable career benefit	11.1
Length of internship	8.5
Other constraining factors	25.1

Respondents also expressed concern about their employment situation, either with regard to obtaining leave (40.4%) or to getting job placement assistance after the internship program (47.8%). Within the category of "other" constraining factors, 9.6% of all respondents indicated the proposed program must allow for adequate financial compensation. Another 3.7% said the research and training undertaken during the internship should apply directly to their own particular field. Despite all of these constraints, however, it is worth noting that 16.2% of respondents indicated they had no reservations in participating, and 16.9% said subsidiary amenities were not important in their decision to participate in the internship program.

While the survey points out that respondents were well aware of the considerable shortcomings of their training and experience, few appeared to see any easy solutions. Only 4.8% indicated they know of previous or existing internship programs applicable to their needs. Those programs that respondents did mention were added to the general internship program list and, where possible, were included in the Internship Identification Survey (see p. 34).

One of the purposes of the Junior Faculty Survey was to identify potential mentors for the future internship program. Junior faculty members were surprisingly forthcoming, with 21.2% of all respondents mentioning senior researchers who might be interested in accepting an intern or who might be able to identify still other internship programs.

Conclusions

1. Judging from their excellent qualifications, recent awarding of their degrees, and junior status at their institutions, the Junior Faculty Survey respondents could serve as the primary, pre-identified pool of applicants for any eventual internship program. As networking continues and interest in the program grows, additional names can be added to the original list.

2. The internship program should pay particular attention to areas in which interns have had little training or experience, but indicate a desire for it. Areas for such special emphasis include 8.0-Grantspersonship, 2.0-Formulating Policy Relevant Research, 5.2-Programming and 5.3-Computer Use, 7.3-Dissemination Techniques, and the more complex statistical techniques.

3. Since there is already considerable interest in women's and minority issues on the part of respondents, research undertaken during the internships should encourage continued research in these areas.

4. The program should be designed in a way that minimizes the disruption of interns' lives. Placement as close to home as possible, an adequate salary, and any practicable help in maintaining continuity with their regular jobs are all important considerations.

5. Interns should be given some direct input into the structuring of their own internship experiences. As a true learning experience, however, no program can afford interns an unlimited chance for policy-making and management. Nonetheless, within the realm of the possible and in addition to their actually conducting research, interns should also receive some opportunity to supervise research (i.e., 7.1-Design & Conduct the Project, 8.4-Project Direction).

6. In light of the extremely strong interest in the proposed internship program, combined with the very limited knowledge of other possible programs, an internship program for junior faculty, particularly women and minority persons, in education and social science research is very much recommended.

Caucus Representative/Department Chairperson Surveys

Procedures

In addition to aiding in the identication of junior faculty, the Caucus Survey hoped to increase publicity for the proposed program, determine the particular training priorities of women and minorities, locate additional internship programs worth surveying and additional senior researchers who might be willing to participate, and solicit specific suggestions for formulating and managing the internship. From the many caucuses and professional associations on file at HERS Mid-Atlantic, a list was compiled of those focused specifically on women and minorities in educational or social science research. Any of the caucuses or associations known to sponsor internship or fellowship programs were included.

Of the 32 groups contacted, 12 responded or passed the survey along to someone better placed to answer it. Though the response rate was only moderate (37.5%), those that did answer the survey proved very helpful in publicizing the proposed internship program.

A separate mailing was directed to department chairpersons in education and the social sciences at universities and four-year colleges in the Mid-Atlantic area. These persons were asked to help identify potential senior researchers and other internship programs and to distribute copies of the Junior Faculty Questionnaire to the appropriate members of their departments.

The impact of the letter sent to department chairpersons was not measured directly, although a number of programs and senior researchers was identified by them. The gain of a specific measurement of how many additional junior faculty members received and returned the Junior Faculty Questionnaire at the urging of their department chairpersons did not justify the time and effort that would have been needed to cross-check the original junior faculty mailing list.

Results

Table 20 shows the relative value respondents to the Caucus Survey placed on the different training aspects of the proposed internship. For half of the items listed (1.0-Formulating Theoretically Relevant Research; 3.0-Data Collection and Research Design; 5.0-Data Processing; 7.0-Evaluation), all respondents indicated the items had either some or considerable value. The largest percentage of respondents mentioned 3.0-Data Collection and Research Design (92%) and 7.0-Evaluation (92%) as of considerable value, followed by 8.0-Grantspersonship (83%), 2.0-Formulating Policy Relevant Research (75%), and 5.0-Data Processing (67%).

TABLE 20

Value of Different Research Training Experiences

	Some Value	Considerable Value
1.0-Form.Theor.Relev.Research	75%	25%
2.0-Form.Pol.Relev.Research	17	75
3.0-Data Coll. & Res.Design	8	92
4.0-Instrumentation	33	50
5.0-Data Processing	33	67
6.0-Statistics	33	58
7.0-Evaluation	8	92
8.0-Grantspersonship	8	83

Regarding other possible training experiences worth including in the program, suggestions included public presentations, involvement with professional networks, and special emphasis on computer technology. Additional comments underlined the need to make the research experience relevant to the interns' particular fields and to offer an adequate salary/stipend.

It is interesting to note that the results of this survey largely parallel the results of the Junior Faculty Survey. In both, a greater emphasis is placed on policy relevant than on theoretically relevant research. Parallel patterns also show up in both surveys regarding the importance of training in evaluation and grantspersonship. One significant discrepancy, however, appears with regard to data collection and research design, where the caucus representatives place a much higher value on these skills than do the junior faculty respondents. Since the junior faculty members surveyed indicated only a moderate degree of training and/or experience in this area, the conclusion may reasonably be drawn that they do not recognize its great importance to research on women's and minority issues.

Conclusions

While the sample from the Caucus Survey is too small to serve as an adequate basis for making conclusive statements, a tentative recom-

mendation can still be made that, despite a general lack of interest in the topic by potential interns, the proposed internship program should include training in the area of data collection and research design. The fact that the need for training in research design was also emphasized at the Senior Researchers' Working Conference serves to confirm the validity of this recommendation (see p. 47).

Internship Identification Survey

Procedures

The Internship Identification mail and telephone Survey was undertaken to identify both programs that were specifically geared to women and minorities in educational research and programs that had generally been especially successful in their field. The overall aim was to discover what characteristics should be included and what particular difficulties avoided in designing the HERS Mid-Atlantic program model.

The survey involved five stages. The initial step was the gathering of names and addresses of internship and fellowship programs as well as of persons who might be contacted for information. A review was made of directories of internships, published lists of programs sponsored by various organizations, and reports on programs available through Education Resources Information Center (ERIC) regarding training programs in educational research and other training directed toward women and minorities. The Blake and Williams report (1977) on increasing the participation of women and minorities in education knowledge production and utilization (KPU) was another useful resource.

In addition to the literature search, HERS Mid-Atlantic staff located internship programs by contacting resource persons in the educational research and professional development community, and within government agencies, professional organizations, and higher education. The mailings made to minority and women's caucus groups and department chairpersons asked for the names of known programs established for training women and minorities to increase their skills and advance their careers. Programs cited by respondents to the Junior Faculty Survey were also added to the list.

The second stage of the survey involved designing an open-ended questionnaire and mailing it to contact persons at the approximately 130 internship/fellowship programs that had been identified. Certain programs entitled "fellowships" were also included since some of those appeared to have an experiential and training component that was relevant to an internship program. The questionnaire sought information on the name, sponsor, and objectives of the program, together with the criteria for selection and the kinds of learning experiences offered to interns. Suggestions were also solicited from respondents regarding factors that would help make the proposed research internship for junior faculty as attractive and beneficial as possible to interns, particularly women and minorities, and to mentors and placement institutions.

A total of 46 usable responses was received, yielding a response rate of about 35%. This moderate response rate may be attributed to a number of possible factors. In view of the fact that the initial program information did not always indicate the dates of operation of the programs, it is possible that mail surveys were sent to some programs not currently functioning. The fact that several surveys were returned by the Post Office indicates this was indeed the case. Forms sent to large organizations, such as universities or research facilities, may not have reached persons knowledgeable about the program, past or present. Personnel changes may have resulted in forms being redirected to persons who had left a sponsoring organization. Because the initial list included a number of fellowship programs that were likely to have internship components, some inappropriate programs also received surveys. Names and addresses of internship survey respondents appear in Appendix D.

In the third stage of the survey, initial responses were studied, and a preliminary codesheet for the responses was drawn up. As information on the various programs continued to be received, the questionnaire and coding systems were refined and expanded. (The final form of the codesheet, along with the survey instrument, appears in Appendix A.) The initial program list was also refined, with attention focused particularly on programs that: 1) related to advanced professional training for minorities and women, 2) included educational research, and 3) were aimed at mid-career individuals and those at the postdoctoral level.

In the fourth stage of the survey, a subgroup of 15 programs was selected for follow-up contact, this time by telephone. A special follow-up questionnaire was used (see Appendix A) to focus on those specific areas where information from the first survey was incomplete and on certain important general issues that had been identified in stage three of the survey. Particular questions were addressed to such concerns as funding, salaries and tax status of interns/fellows, procedures for matching mentors and interns, motivation of interns and mentors, evaluation procedures, and special areas of success or failure.

Results

Table 21 shows the breakdown of the programs responding to the survey according to their primary field of interest. Not unexpectedly, programs in educational research led the field (28.3%). Administration/management and science/medicine each represented the focus of about a quarter of respondents.

TABLE 21

Principal Interest of Respondent Programs

Educational research	28.3%
Administration and management	23.9
Science and medicine	23.9
Legal and social policy	17.4
Humanities	6.5
Environmental science	4.3

A distinction often needs to be made between agents sponsoring internship programs and placement institutions at which interns actually work during their internship tenure. Most of the organizations surveyed did place their interns within their own ranks (60.9%), but a sizable group placed them elsewhere (28.2%). Most of these, however, continued to supervise the interns despite their external location (21.7%). Table 22 gives complete results.*

TABLE 22

Method of Intern Placement

In-house placement and supervision	60.9%
Outside placement/outside supervision	6.5
Outside placement/periodic supervision by sponsor	21.7
Other	10.9

N=46

It is clear from Table 23 that, whether placement was internal or external to the sponsor, most placement sites fell into four categories: higher education institutions (34.8%), government agencies, including school systems (32.6%), nonprofit organizations (23.9%), and research centers (19.6%). Since most placements were inside sponsoring organizations (60.9%), it follows that these four groups were, themselves, responsible for many of the internship programs. The survey in fact helps confirm the big role that government, nonprofit organizations, and especially research centers have in conducting internship programs.

*From this point on for the remainder of the Internship Identification Survey results, all reported percentages are for those programs providing information on the item in question (i.e., relative frequencies). Percentages at times total more than 100 due to multiple responses. The number of programs indicated for the various questions (N) varies because of incomplete information on certain items and because the telephone survey's follow-up questions were asked only of a subset of the initial survey's 46 programs.

TABLE 23

Type of Placement Site

Higher education institution	34.8%
Government agency (including school system)	32.6
Nonprofit organization	23.9
Research center	19.6
Private industry	6.5
Other	8.6

N=46

The financing of internship programs is an especially important issue (Tables 24-26). In many instances sponsoring organizations had adequate resources to pay for their programs themselves (37.2%), but it was just as frequently the case that they had to rely primarily on outside sources of money (37.2%). More than a fifth of the programs responding financed their work through a combination of internal and external resources. One clear result is that, however financed, internship programs are expensive. Two-thirds of the programs questioned in the telephone survey indicated their programs offered interns either a living expenses stipend (for students) or compensation at least commensurate with their previous salaries. Salaries, rather than the more modest stipends, were more often than not the rule for these programs. This is indicated by the fact that about three-fourths of the "stipends" fell into the taxable category.

TABLE 24

Funding Method

Sponsoring agency only	37.2%
Outside funding primarily	37.2
Combined internal/external	23.3
Other	2.3

N=43

TABLE 25

Stipend/Salary Size

Present income level	66.7%
Income cut	20.0
Cut but supplements	6.7
Only special expenses	6.7

N=15

TABLE 26

Tax Status

Non-deductible	73.3%
Partially deductible	13.3
Fully deductible	13.3

N=15

Of those providing the information in the overall survey, more than 91% offered some sort of stipend (Table 27). More than 16% paid for tuition and an equal number provided funds for professional travel. Supportive services like counseling, computer time, or secretarial assistance were provided by about 30%. This figure no doubt underestimates the actual amount of supportive services interns receive, because such research aids as computer time and secretarial services are probably provided directly by the placement institution and not necessarily by the institution conducting the internship.

TABLE 27

Benefits

Stipend/salary	91.9%
Supportive services	29.7
Tuition payment (ongoing study)	16.2
Funds for professional mobility	16.2
Honorific status only	5.4
Other	5.4

N=37

Of the programs surveyed, internship tenure usually lasted for a year or more (Table 28).

TABLE 28

Duration of Internship Tenure

More than one year/renewable	44.2%
Up to one year	41.9
Three to six months	7.0
Less than three months	7.0

N=43

What were these internship programs designed to accomplish? As Table 29 indicates, by far their primary objective was to increase the expertise of the interns (76.1%). Other significant aims were increasing interns' leadership potential (44.2%) and improving the conditions for a special target population (e.g., women, minorities) (39.1%).

TABLE 29

Program Objectives

Increasing expertise of interns	76.1%
Increasing leadership potential of interns	44.2
Improving conditions for a special target group	39.1
Advancing a particular field in general	30.4
Generating research	13.0
Other	8.7

N=46

To accomplish such goals, interns were offered a variety of experiences (Tables 30, 31). Group and/or individual orientations (54.8%, 51.6%) figured prominently among the programs offering information. Eighty-seven percent provided information on special training and course work. Among these respondents, specialized short-term lectures and conferences (57.5%) and group meetings with interns, mentors, and outside speakers (45.0%) were the most frequently used training methods.

TABLE 30

Orientation Programs

Group	54.8%
Individual	51.6
None	6.5

N=31

TABLE 31

Training/Course Work

Specialized short-term lectures and conferences	57.5%
Group meetings with interns/ mentors/others	45.0
Continuation of regular outside studies	27.5
Formal courses offered by sponsor/placement instit.	27.5
Other	17.5

N=40

The vast majority of programs (43) mentioned the specific duties of interns (Table 32). The most frequently cited of these included conducting their own independent research (48.8%), gaining practical experience in the program's field (e.g., administration) (32.6%), and working on special projects with their mentors (30.2%). The high figure for independent research is probably one indication (others are mentioned on p. 42) that many of the programs surveyed were primarily geared to predoctoral interns who use the internships to work on their own theses or dissertations. Results from the telephone survey (Table 33) show that, however their duties may have been structured, interns were usually expected to produce something specific by the end of their internship tenure.

TABLE 32

Duties of Interns

Conducting own independent research (e.g., dissertation project)	48.8%
Other practical experience in the program's particular field (e.g., administration)	32.6
Working on special project with mentor	30.2
Joining large, ongoing research project	27.9
Teaching/training of others	7.0
Studying only (i.e., attending courses, going through training program)	7.0
Other	4.7

N=43

TABLE 33

Are Interns Expected to Produce Something Specific?

Yes	81.3%
No	18.8

N=16

One surprising finding emerging from the survey, particularly from the open-ended comments elicited during the telephone interviews, is the fact that, regardless of whatever other experiences these internship programs incorporated, very few had built in any formal opportunity for interns to get together and share their thoughts and experiences with one another. This comes across to some extent in Table 34, which reports intern/intern contact. In about 32% of these programs, interns had either no or only limited contact with other interns. Even the fact that in another 34% of these cases interns were in constant contact does not necessarily indicate these programs provided interns a chance to come together to formally evaluate their experiences. The fact that evaluation procedures in general (see below) were somewhat sketchy casts additional doubt on the matter.

TABLE 34

Contact Among Interns

Periodic	34.2%
Constant (e.g., same location)	34.2
None	18.4
Limited	13.2

N=38

Where did these programs find their candidates? Table 35 portrays the answer. A good number recruited candidates from the community at large (34.1%), but most channeled their communications to special publics through, for example, specific institutions or academic departments (56.1%). The survey gives the general impression that many programs, though not intentionally exclusive, operate to a large degree within their own established networks. Personal contacts with individual professionals or institutions as well as personal contact directly with potential candidates were two highly popular recruitment techniques (29.3% and 22%, respectively).

TABLE 35

Recruitment Methods

Formal communication to specific institutions/departments	56.1%
General advertisement (e.g., in journals, newsletters)	34.1
Personal contacts with institutions/departments/ individual professionals	29.3
Personal contacts with potential candidates	22.0
Other	7.3

N=41

The usual application materials were just about universally mentioned by those programs that discussed their selection procedures (Table 36). The research orientation of many of the programs was apparent in that almost 40% of these internships required applicants to present a research proposal as part of the application process. Of the 72% of respondents providing information, almost all cited review by their own organization, but many involved potential mentors (24.2%) and/or outside agencies or professionals as well (18.2%) (Table 37).

TABLE 36

Application Materials

Usual application form/references	89.5%
Special proposal	39.5
Previous research paper/publication	15.8
Certification of special skills	5.3
Other	13.2

N=38

TABLE 37

Review Process

Sponsoring agency	97.0%
With interview	42.4
Potential mentors	24.2
Outside agencies/ professionals	18.2

N=33

Twenty percent of the programs responding appeared aimed especially at women, while 26.6% were focused on minorities (Tables 38, 39).

TABLE 38

Sex Focus of Programs

No particular sex focus	80.0%
Primarily female focus	20.0
Primarily male focus	0.0

N=45

TABLE 39

Racial Focus of Programs

No particular racial focus	73.3%
General minority focus	24.4
Hispanic focus	2.2

N=45

A general picture of the career level focus of the programs surveyed emerged from the questionnaire and telephone responses (Tables 40-43). The internship programs were primarily designed for people at the junior level (37.8%) or below (53.3%). Graduate work either at the pre-dissertation (35.7%) or dissertation level (33.3%) was the rule, though certain programs were available to people either at the B.A. (16.7%) or postdoctoral stages (33.3%) as well. Either no (42.9%) or relatively little (47.6%) research experience was required. The same held true for interns' work experience in the program's particular field, where either none (52.5%) or little (35%) was reported. As in the case of the large percentages of interns conducting independent research (Table 32, p. 40), it is striking that, despite the conscious effort made to include mid-career level programs in the survey, the junior level focus should still predominate so strongly. This leads to the conclusion that there are, in fact, relatively few mid-career internship programs in operation.

TABLE 40

Professional Status

In preparation, not yet employed fulltime	53.3%
Junior level	37.8
Middle level	22.2
Senior level	4.4
Other	6.7

N=45

TABLE 41

Academic Preparation

Some graduate work	35.7%
Dissertation level	33.3
Postdoctoral	33.3
B.A./B.S.	16.7
Specialized, non-academic training	2.4

N=42

TABLE 42

Research Experience

Proposal/unpublished papers	47.6%
None	42.9
Publications	11.9
Not applicable to program	9.5
Other	2.4

N=42

TABLE 43

Work Experience in Program's Field or in Related Field

None	52.5%
Some	35.0
Considerable	17.5
Other	5.0

N=40

Time and again respondents stressed the vital importance of the mentor-intern link. When it came to specifying what to actually look for in one's mentors, little information was forthcoming (Tables 44, 45). Less than half of the respondents (21) mentioned any special characteristics to be sought in mentors. Of the limited number of responses offered, most of them were too diffuse to categorize. One clear and self-evident finding, however, was that mentors came primarily from the senior ranks, with some participation by middle level personnel.

TABLE 44

Special Mentor Characteristics

Previous experience with interns, graduate students, etc.	9.5%
Minority member	4.8
Other	90.5

N=21

TABLE 45

Career Level of Mentors

Senior level	100.0%
Middle level	29.6

N=27

In the all-important matter of mentor-intern matching, the results are sketchy and are derived for the most part from the follow-up telephone survey (Table 46). What little can be said is this: the match-up seems to be a somewhat symbiotic process of mutual choice. While the intern often takes the initiative, either through his or her project proposal or through the advance desire to work with a particular person, at the same time mentors are influential in the general selection of candidates, in designing projects, and in ultimately agreeing to contribute their time and energy to working with a particular intern. Other important factors are mutual research interest and simple personality variables. Many follow-up survey respondents stressed that the primary motivating factor for all mentors was personal satisfaction, i.e., satisfaction for themselves in helping younger colleagues advance.

TABLE 46

Mentor-Intern Matching Procedures

Mentor chosen by intern from available pool of possible mentors (after selection)	46.2%
Intern selected by mentor during selection process as suiting the research project, etc.	30.8
Mentor chosen by intern directly prior to selection (prearranged by agreement)	15.4
Mentor-intern matched by sponsor	15.4

N=13

The final area to be covered is evaluation. One of the survey's most significant findings is the general lack of emphasis on evaluation, both ongoing and review, among the programs surveyed. The

low degree of structured intern-intern contact has already been noted. Such sharing of experiences is certainly an essential component of any personal and program evaluation. Responses from the initial and telephone surveys together were low in this area, leaving the impression that evaluation has not, indeed, been emphasized. From the available results the picture is rather mixed. General supervision of interns (Table 47) was high, although this may have only been the result of normal intern-mentor work contact. Only 26 of the programs cited formal (57.7%) and/or informal (61.5%) review of interns' progress. Only a nominal number indicated any type of evaluation of the internship programs themselves.

TABLE 47

Supervision of Interns

Frequent	65.7%
Very frequent (almost daily)	17.1
Occasional	11.4
Very infrequent	5.7

N=35

Conclusions

1. The preponderance of junior-level programs, despite the efforts to include mid-career internships in the sample, indicates the relative gap that a mid-career internship program for women and minorities in educational research can fill.

2. An internship designed to advance women and minorities to positions of leadership should concentrate above all on giving these groups the expertise required for such high-level positions.

3. A program designed for mid-career persons must be sufficiently funded to provide these interns with a salary that is at least approximately commensurate with their present salary.

4. Because of the higher expense involved in paying salaries (vs. stipends), a great deal of ingenuity and flexibility must be used in devising funding methods. It is likely that those conducting the internship will have to adopt a variety of approaches, involving different combinations of contributions from grant sources and placement sites.

5. The fact that many institutions interested in education, research, and the advancement of women and minorities have conducted their own internships suggests that a program offering interns a variety of these same types of institutions as placement sites may be both feasible and desirable.

6. The internship should last for a minimum of one year and preferably at least informal contacts should be continued for some time longer.

7. For mid-career persons wanting to develop skills and access to professional networks, work with mentors on a special project or participation in an ongoing research project may be more appropriate than independent research.

8. Whether or not the program involves independent research, candidates should be required to submit, with their other application materials, a brief research proposal. This will assist those making the selection to better gauge potential interns' abilities and interests.

9. By requiring a research proposal and therefore gaining a better picture of candidates' research interests, those conducting the program will be in a better position to supervise the all-important mentor-intern match. Besides mutual research interest, personalities, level of training, and the need for role models should be taken into consideration.

10. Care must be exercised in choosing mentors who are very well qualified in their fields, are willing to help their interns get into the professional mainstream, and can take personal satisfaction in seeing interns, particularly women and minorities, advance.

11. In addition to whatever research project interns are given to work on, the internship program should include group and/or individual orientation, special lectures and conferences geared to interns' needs, and group meetings with interns, mentors, and other appropriate professionals.

12. In order to help interns assess their own progress and evaluate their experiences generally, opportunities for interns to meet with one another should be formally structured into the internship program.

13. Those conducting the internship should pay special attention to intern and program evaluation. Formal procedures for mentors to evaluate interns' ongoing progress (e.g., intern logs) and for both interns and mentors to evaluate the program (e.g., group meetings, questionnaires) must be included in the program.

Senior Researchers' Working Conference

Procedures

A two-day Senior Researchers' Working Conference formed an essential component of the Feasibility Study. The conference was designed to help HERS Mid-Atlantic gather additional ideas and insights for formulating and running an internship program. The conference was also

seen as a way to get knowledgeable persons in the fields of education and social science, especially those with experience in internship programs, to contribute valuable feedback concerning the evolving HERS Mid-Atlantic model.

Most of the 25 conference participants were from the eastern part of the country, but some came from as far away as California (see Appendix E for a complete list of participants). They were invited on the basis of their demonstrated interest in issues concerning women and minorities, their background in the areas of social science and educational research, and their special experience working with interns and research assistants. Members of this group have been, and will continue to be, very valuable to HERS Mid-Atlantic for a number of reasons: their advice and recommendations about the model internship program; their contacts with potential mentors and host institutions; and their ability to serve, in time, in an advisory role, as a review committee for candidate selection and eventual intern and program evaluation. A number of participants at the working conference also expressed an interest in serving as mentors.

Potential participants to the conference were contacted first by telephone. Those who accepted the telephone invitation were then sent a written invitation along with materials describing the proposed internship program and details of the Junior Faculty Survey then in progress. Those invited to the conference were asked to familiarize themselves with the materials and consider in advance the topics listed for discussion on the enclosed agenda (see Appendix E for conference agenda and discussion topic outlines).

The first evening of the conference was spent in giving a general overview of the conference and in introducing the special discussion topics. Preliminary results of the Junior Faculty Survey and the Internship Identification Survey were also reported and discussed. The next morning was divided into time blocks during which working groups composed of senior researchers, project team members, and HERS Mid-Atlantic staff discussed the initial topics outlined in the agenda. Each group was led by a facilitator representing the project team, and one participant in each group served as recorder. Groups were requested to make recommendations regarding the various aspects of the proposed internship and to indicate areas in which more information was necessary. At the end of the morning sessions, groups summarized their discussions on large newssheet and posted them for others to read and comment on. The afternoon's activities involved continued group discussions and a final open meeting at which all the participants reviewed their findings, raised additional questions, and summarized conclusions. Finally, those attending the conference were asked to submit a current vita for the HERS Mid-Atlantic files and complete a response sheet dealing with their impressions of the conference and ways in which they would be willing to cooperate in establishing an internship according to the proposed model.

Results and Conclusions

Internship Program Components

The conference concluded that interns should:

- -receive a 12-month assignment
- -be assigned to a person, not just an institution
- -gain experience in applying research and management skills
- -learn to draft proposals for funded research
- -produce a publishable research "product"
- -gain practice in public presentation through seminars/ symposia
- -attend a professional conference in their field
- -be integrated into professional networks
- -be given access to:
  - .other faculty at the host institution
  - .university or in-house course offerings
  - .telephone and office space
  - .secretarial and other support
  - .library and computer facilities

Training Experiences To Be Offered

The conference concluded that training experiences for interns should include:

- -general orientation session that concentrates on:
  - .leading interns to recognize their own training needs
  - .helping interns establish realistic expectations for their tenure
  - .giving interns a sense of what research actually entails (e.g., not all glamorous policy-making)
- -classes/seminars/special conferences offered by the placement institution and/or sponsoring organization covering such topics as:
  - .research design and methodology
  - .specific research skills training where necessary (e.g., statistics, computer usage)
  - .project management

Recruitment, Selection, Review Process

Within these broad areas, the conference decided that:

- -interns can be recruited through the following:
  - .brochures mailed to department chairpersons, special interest groups, state boards of education, etc.

.individual letters to chairpersons and faculty members
.open ads
.candidate self-nomination

-those who recruit candidates must make a special outreach effort to attract women and minorities
-interns should be selected with the following in mind:

.high professional qualifications
.interest in education or social science research with possible special interest in women and minority issues
.demonstrated ability to handle ambiguous situations and take the initiative
.postdoctoral status
.long term commitment to the field of education/social science teaching/research/administration
.willingness to stay with and complete a supervised project

-placement sites can be identified according to these criteria:

.locus of senior researchers identified by candidates
.need for a variety of types of placement sites
.special suitability of universities or other institutions with large research projects already in progress

Special Mentor-Intern Considerations

Under this heading the conference concentrated on intern-mentor matching and intern-mentor-placement site motivation. In matching interns and mentors, the sponsoring organization should:

-make the match on a one-to-one basis with as complete congruence of research interest as possible between intern and mentor
-carefully set out the responsibilities of sponsor, interns, mentors, and placement sites
-make certain that mentors are willing to have interns work with them, not just for them
-help mentors to realize that interns have a need for status recognition and advise them to accentuate aspects of the program in which mentors and interns can work as peers

The various incentives for the different parties involved in the internship are:

-Interns

.prestige and general honorific benefits
.training and experience
.exposure to a network of potentially valuable contacts
.association with a top-notch researcher
.monetary benefits
.access to institutions' faculty and facilities

-Mentors

.prestige and general honorific benefits
.access to a network of mentors
.obtaining a talented assistant
.knowledge and skills of intern
.increase in research's visibility
.intellectual exchange and stimulation
.advancing their fields by the training of additional researchers
.expenses paid to an orientation conference and selected training events
.personal satisfaction in acting on their commitment to the program's goals

-Placement Sites

.increased prestige and exposure
.possible financial benefit
.research assistance for institutions' research projects

Program Coordination Procedures and Responsibilities

In discussing this topic, the conference participants outlined the various duties of the potential internship sponsor, interns, mentors, and placement institutions. The complete list of these respective responsibilities can be found on pp. 61-64 in the discussion of the internship model.

Program Evaluation and Dissemination

In the area of evaluation, the conference made the following recommendations:

-the primary agent responsible for evaluation should be the program sponsor
-the advisory group can be especially helpful in offering an outside review of the program and in evaluating interns' research
-because of the individualized nature of the internships, a case study approach is probably the most appropriate format for evaluation
-the program should formally include time for gathering feedback from interns and mentors, both during the program and at its conclusion
-interns should be required to state in writing their personal objectives and expectations at the end of their orientation session. Interns should review these statements at the end of their internship tenure.
-mentors are primarily responsible for evaluating interns' progress
-the sponsor should investigate the possibility of conducting a longitudinal study of the career paths of participating junior faculty interns

Regarding dissemination, the conference concluded that:

- -a complete description of the internship program and its progress should be disseminated as widely as possible through journal articles, newsletters, personal networking, etc.
- -a special brochure, including a directory of interns and their comments about their experiences in the program, should be published
- -the program's sponsor should make an effort to see that interns' research papers are widely distributed

Strategies for Increasing the Participation of Women and Minorities

In viewing the program broadly, the conference came to the following conclusions:

- -many minority and women junior faculty members can profit greatly from this special internship program, both because their considerable talents tend to be so underutilized and because they are largely outside the networks of professional communications
- -one of the principal aims of the internship program should be to foster the building of a network among the interns, themselves
- -in order to give interns the added benefit of direct role models, as many minority and female mentors as possible should be asked to participate in the program
- -whatever potential impact the program may have, all concerned should be cautioned against expecting any great changes overnight. Any ripple effects will first make themselves felt a number of years in the future. The fact that payoffs lie so far in the future, however, is all the more reason for making the investment involved in the internship program as quickly as possible.

The follow-up evaluation survey of the Senior Researchers' Working Conference reflected the overall success of the sessions. Of the 15 responses received from among the 20 senior researchers, 93% indicated they were interested in assisting in the actual internship program. Those responding indicated they would like to contribute in these areas:

Advisory team member	80.0%
Senior researcher/mentor	66.7
Organizer/presenter for an invitational seminar	46.7
Facilitator for access to networks	33.3
Team reviewer in the selection process	26.7
Publicizer of the program	20.0
Recruiting assistant	6.7

Of this same group, 80% felt their institutions would be able to accept an intern from the program for September 1979.

CHAPTER V

INTERNSHIP MODEL PROGRAM

Introduction

Judging from what was learned from the Feasibility Study, HERS Mid-Atlantic's efforts have been very worthwhile. The Junior Faculty Survey has brought to light a tremendous need for a mid-career research training internship as well as a very large demand among women and minority junior faculty for such a program. Their particular needs and desires regarding specific areas of expertise, their practical constraints in participating, and their own original suggestions have proven very helpful in designing the model internship program.

The internship program survey, on the other hand, provided a wide pool of possible characteristics from which HERS Mid-Atlantic has been able to select those most appropriate. The survey has also pointed up a number of difficulties and shortcomings general to most internships. These, too, have been considered in designing the model program. The internship survey shows once again the void that the proposed program can fill in the area of middle-level training.

Finally, the Senior Researchers' Working Conference afforded an opportunity to receive valuable feedback that, in light of their excellent recommendations, assisted in the formulation of a better internship model program. Before implementation of an internship program, selection of a committed group of senior researchers who can serve as advisors and mentors is recommended.

HERS Mid-Atlantic's Strategy and Recommendations

HERS Mid-Atlantic recommends a model internship training program to help increase the number of qualified minorities and women in leadership positions in research and development. The pilot program should focus on mid-career women and minority junior faculty members in colleges in the Mid-Atlantic region who are committed to research and interested in changing career emphasis or increasing their career options. After functioning in the Mid-Atlantic region, similar projects might be run in other parts of the country. The internship is designed to encourage the pursuit of fresh educational research related to the special concerns of minorities and women and to create, with the help of committed mentors, a new network of researchers who can contribute to strengthening the quality, relevance, and credibility of educational research.

Under the proposed model internship training program, junior faculty in education and the social sciences will work for one year with a senior researcher/mentor on an original or continuing research project.

Interns will attend internal and external training seminars, work on at least one publication, and gain experience and assistance in writing and obtaining funding for independent research. When possible the placement institution will contribute 40-100% of the intern's salary. HERS Mid-Atlantic's preliminary negotiations with potential placement sites indicate that, because of present market conditions, it cannot be expected that many host institutions will be able to contribute to the intern's salary. Host institutions, however, will make a substantial in-kind contribution in terms of staff time, benefits, facilities, instruction, access to computers, and support services.

One special approach to funding is to make the internship program available to recipients of outside fellowships (e.g., NSF, NIH). Such interns will be able to fulfill the obligations of their grants while at the same time profiting from the special skills training and close mentor relationship not usually offered by the traditional postdoctoral model. This allows an even larger number of women and minorities to obtain the advancement opportunities in educational research offered by the internship model.

Outside funding will be needed for administering the internship program, for supplementing the interns' salaries, for consulting, for intern and mentor travel to a professional meeting, and for at least two external training seminars. Additional funds will be needed for specialized research training, networking, and seminars addressed to identifying and removing barriers to advancement.

To increase the impact of placing a small number of interns, HERS Mid-Atlantic recommends selecting an additional number of intern candidates and including them in seminars to increase their research skills and provide the mechanism for senior and peer networking.

General Goals

HERS Mid-Atlantic proposes a number of goals and objectives. The following general goals are listed for the model research training internship. This program is designed to:

1. Involve a variety of institutions and senior social science and educational researchers who will participate in the processes of intern training and encouraging access to and creating ties with existing networks of established researchers, funding agencies, and institutes.

2. Provide specialized training in the form of workshops and invitational seminars for the interns and for a considerably larger group of intern candidates.

3. Establish ties and support groups among women and minority interns for a new network of educational researchers.

4. Conduct research on issues of concern to women and minorities that will contribute new methodologies and knowledge to the field of educational research.

5. Conduct a comparative evaluation of the model internship program at each placement site, results of which will be used to improve the program in the second year.

6. Assist with replication of the improved model in other regions.

Specific Objectives

The specific objectives proposed are to:

1. Select 20 research institutions and senior researchers committed to accepting an intern.

2. Select 40 final intern candidates, 6-10 of whom will be chosen as interns and placed with a senior researcher on an ongoing project.

3. Place 6-10 or more additional finalists as interns for the second year of the program.

4. Cultivate a mentor-intern relationship for training and assistance in gaining access to and establishing ties with networks of educational researchers, funding agencies, and institutes. Mentors will assume a teacher-colleague role.

5. Hold an orientation session for the interns at the beginning and a workshop at the completion of the year.

6. Conduct two invitational external seminars for interns and intern candidates. Intern candidates will receive seminar training in at least two desired training areas, such as grantspersonship, formulating research problems, research design, statistical and computer application, and evaluation and dissemination.

7. Bring together interns and other minority and non-minority men and women within and among the placement sites to share in training, advising, and maintaining professional contacts. The sponsoring organization can facilitate this interaction through newsletters, a directory, and an employment registry.

8. Emphasize research on special concerns of minorities and women and consider alternate methodologies. Research skills will be acquired and applied to studying problems of major concern to women and minorities on the project, and through institutional and invitational seminars. Interns will present papers and work to publish results.

9. Study the barriers to the advancement of women and minorities and develop strategies for removing them. One seminar should address this topic and produce findings to be disseminated.

10. Obtain data from mentors and interns concerning process and content of the model program. Both formal and informal approaches will be used, such as feedback forms, logs and case statements, to evaluate the program. Data will be used to revise the program in the second year.

Proposed Internship Model

HERS Mid-Atlantic has used the results of all components of the Feasibility Study to design an educational intervention for training and advancing minorities and women in educational research and development. Although the model internship program could be run by any of a number of sponsoring organizations, the model is designed here with HERS Mid-Atlantic as the sponsor.

The proposed internship model program is designed to equip talented junior faculty with the special research and management skills and the practical experience in using those skills needed to assure their professional advancement in careers in higher education and educational research. Briefly, the 12-months' internship will involve assigning interns to those specific mentors who are professionally and temperamentally best able to meet their particular needs. Interns will be teamed with eminent researchers at institutions with large ongoing research projects in order that, aside from their own research work, they may learn and apply special skills to the management of research and development. Working with their mentors, interns will learn the mechanics of drafting formal research proposals. It is hoped their research activities will result in at least one publication, in addition to the public presentation that will be built into the program.

Training will be offered through various orientation sessions and skill conferences. Interns will have a valuable opportunity to become integrated into the professional networks through their participation with other interns in training conferences and through the contacts they will make, with the help of their mentors, at their placement institutions and elsewhere. The program also calls for interns to attend professional meetings in their field. Taken together, these basic elements of the internship program will go far in answering the needs of women and minority junior faculty expressed in the Feasibility Study.

Recruitment and Selection

The primary intern recruitment tool will be a brochure describing the program's objectives and opportunities. The brochure will be sent to junior faculty questionnaire respondents, department chairpersons, special interest groups (e.g., women's and Black caucuses), state boards of education, and other special interest groups and

individuals. The sponsoring organization will also undertake to publicize the program in professional journals and in its own publications and will send individual letters to relevant faculty members. While department chairpersons will be encouraged to ask junior faculty members to apply, actual nomination will be by the potential interns themselves.

The target population of the internship will be junior faculty, particularly minorities and women, in the Mid-Atlantic region. The program is designed for postdoctoral level candidates with a strong commitment to the fields of social science and educational R&D, especially in the areas of minority and women's issues. In general, the program will be looking for very highly qualified, mid-career people who can combine a high degree of flexibility with an ability to seize initiative and take an active part in structuring their own internship experiences. Provisions will be made in the program for the placement of recipients of outside fellowships, such as those awarded by the National Science Foundation (NSF), National Institute for Health (NIH), and National Institute for Mental Health (NIMH).

In addition to usual application materials, including multiple references following a structured format, candidates will be required to write a general statement of their overall interests, their personal strengths and weaknesses, and their future plans. They must clearly state their objectives and expectations in applying for the internship. If candidates can identify a particular mentor and/or ongoing research project with which they wish to be associated, they will be encouraged to do so. Finally, all candidates will have to propose a tentative project, in the form of a preliminary research proposal, which they would like to undertake during their internship tenure.

Once the application process is completed, the sponsoring organization's staff, working together with a committee made up of senior researchers and other outside advisors, will review the materials submitted by candidates and select 40 final intern candidates. Ultimate selection will then be based on personal interviews, including one by prospective mentors, and a final review by the sponsoring organization.

Placement

Since many institutions have their own policies regarding the acceptance and management of postdoctoral associates, placement sites should be identified as early as possible to allow time for the sponsor to conduct the often complex negotiations involved in actual intern placement. Much of the work can be eased if candidates already have a feasible site in mind and have, themselves, made preliminary inquiries. In general, site selection is dependent on the compatibility of the types of research being done at prospective placement institutions with the goals of the internship program. Placement sites will be limited primarily to those located in the Mid-Atlantic area that have strong and diversified

research programs. In this way, the likelihood is increased that interns will have a pool of possible mentors at a particular site from which to choose. In all cases, placement sites must have the type of record that would lead the sponsor to believe they could offer minorities and women positive and supportive internship experiences.

HERS Mid-Atlantic recommends surveying potential placement sites well before inception of the internship. Possible locations include prestigious universities, research institutes, city school systems, state education departments, professional organizations, and federal government agencies. A wide diversity of sites offers a number of advantages to interns. They are more likely to be placed within an organization and in those activities that match individual needs and desires. Contacts with senior researchers and peers both within and among institutions will be strengthened.

The foremost consideration in intern-mentor matching is that the process be done on a one-to-one basis with as close to complete congruence of research interest as possible between intern and mentor. The matching process will proceed in two phases. Initially the sponsoring organization will identify a pool of potential mentors and match them with junior faculty applicants. Then interns, based on their research proposals, will be offered three to four possible mentors in their area of interest. The intern's exact program will be formulated by the intern and mentor working together in terms of the mentor's specialized field and the intern's particular objectives and expectations. Before beginning actual work, however, both interns and mentors will have to spell out their respective needs and obligations to one another.

In agreeing to work with an intern, mentors must be aware of and accept the skill level of the particular intern. Mentors should not expect interns simply to work for them, but rather they must be willing to recognize that interns have skills which can be applied to the common project. A particular quality to look for in mentors is their sensitivity to the special needs of the intern population (i.e., junior faculty, mid-career, minorities and women). They must be particularly aware of and willing to acknowledge the need of interns for status recognition. Both interns and mentors must be flexible and adaptive with regard to interns' status, for their status will vary from institution to institution, depending on the setting and the individuals involved.

For their part, interns must be willing to be bound to a particular mentor and project for the duration of their tenure. They must also have a clear preconception of the nature of research and recognize that their projects will not likely involve glamorous policy initiatives.

HERS Mid-Atlantic proposes a variety of institutions as placement sites. Each site can offer unique aspects and networks that should provide the interns with multifaceted experiences. All institutions must have libraries and computers and other facilities

accessible to interns. Examples of possible placement site models follow.

1. University

Postdoctorate Fellow

Some of the intern candidates may apply for postdoctorate fellowships, such as NSF, NIMH, NIH and Minority Fellowships that can be used at institutions such as Yale University or Columbia University. The model offers the resources of large and prestigious universities with the potential of supplementing income through teaching. The potential areas of research are: television, human diversity, sexuality, language, ethnic differences and learning, desegregation, migration patterns.

Research Associate

An intern may serve as a research associate, for example, on an NIH-funded or other externally funded research project in Women's Studies and Sociology being conducted at an institution such as the University of Pennsylvania.

Research Assistant

An intern can concentrate on survey research in university offices of Institutional Research and Planning.

Assistant Project Manager and/or Research Assistant

One intern placed with the sponsoring organization will receive partial support from the project and possible additional support and mentorship from other funded project(s) at the sponsoring organization's university. This combined postdoctorate and research assistant model will provide managerial and research experience and visibility through the intern's working with all the other placement sites and personnel. The areas of particular research concern in this model are: internship program design, program development, evaluation, and dissemination. Existing data bases on minorities and women junior faculty and administrators are available for studies.

Research Fellow

Research positions at university research centers doing work on higher education, the social sciences, and minority and women's issues comprise another placement model.

2. Research Institute

Research Assistant

Private profit and nonprofit institutes, such as the Educational Testing Service (ETS), Princeton, New Jersey, ABT Associates,

Boston, Massachusetts, and The Rand Corporation, Washington, D.C., provide another unique placement experience for interns. Interns associated with ETS, for example, have the advantage of being associated with ETS' own ongoing internship programs and have the opportunity to participate in ETS' organized seminars. The site offers the advantages of diverse projects and proximity to Princeton University. Examples of areas of research for interns are: sex-role stereotypes, personality, minority issues, child development, female leadership. ABT's research includes topics on early childhood day care, compensatory education, women and mathematics, desegregation, organizational change. Institutes such as Rand conduct research primarily on policy issues.

3. Government

Research/Administrative Intern

State Education Departments' divisions of higher education evaluation and assessment offer unique opportunities for work on large data bases and the proximity to experts in educational management and policy. Federal agencies such as the National Center for Education Statistics, the Department of Labor, and the Office of Education and its divisions are other possible placement sites.

4. Other Placement Models

Organizational Intern

Placement in national offices of professional organizations such as the American Educational Research Association (AERA) can provide research and leadership training and access to key networks. The professions can also assist in recruitment, publicity, placement, and training.

On-Site Intern

In certain specialized situations, an intern can negotiate for a partial leave of absence with continued benefits from his/her present position at the home institution. The intern will then be placed with a senior researcher either at the home institution or at one nearby. This model has the advantage of increasing the number of interns reached and decreasing the investment needed to train and place them.

Research Intern

School districts with large research and evaluation divisions, such as the School District of Philadelphia, are in a position to provide interns with training and experience in research and evaluation, report writing and dissemination, as well as field research and management.

In all cases, details for intern acceptance and placement will have to be negotiated with each party involved: the sponsoring organi-

zation, the intern, the mentor, and the placement institution. Final placement will be contingent upon funding and the agreement of all parties.

Training and Orientation

Training should be geared as much as possible to the exact needs of the particular intern.[1] At the same time, interns can profit from training only if they are willing to recognize their own deficiencies. The task of an initial session for all interns prior to placement will be to help interns evaluate their general career and training needs and set realistically their expectations for their upcoming internship tenures. Other suggested topics to be addressed in the orientation include the value of particular types of research skills, and math anxiety and its relationship to the use of advanced statistics and computer applications.

Throughout the internship year HERS Mid-Atlantic proposes that additional special topic conferences be held to address issues like grantspersonship, evaluation and dissemination of research, management and budgeting, and computer applications. A final seminar will bring all interns together one last time to share and evaluate their experiences and to offer feedback that will be valuable to the internship program's continued development.

At least two annual special topic conferences are suggested per year. One of these conferences should address barriers and strategies, i.e., barriers that prevent minorities and women from advancing and strategies for removing these barriers. Thirty interns and intern candidates will be selected to attend such a conference, along with 6-10 mentors. The workshop will be held prior to placement. Findings and recommendations from the workshop will serve as additional data for improving the internship program. The printed results will also be disseminated to principals designing and managing other educational research internship programs.

A second special topic conference should deal with career development and professional networking. Forty interns and intern candidates, along with 6-10 mentors, will be involved. The concepts and mechanisms for networking and communication and access to senior networks will be addressed. The sponsor, the placement institution, and other consultants will share information on training, employment, and market trends. Offered early in the internship year, the seminar will include discussions on mid-career entry into research and help create an interest specifically in educational research. Peer networking (intern-intern interaction) and mentor-intern networking will be fostered, with the contacts having been initiated at the first seminar.

In both seminars proposed, participants, as part of the advisory committee and as attendees, will be instrumental in program devel-

[1] Training needs and desired training described on pp. 23-28.

opment and share some responsibility for content of the materials that will be printed and disseminated. An evaluative instrument will be developed to assess the process and quality of each special project. In addition, short-term training as a strategy will be evaluated.

Several additional conferences for the second year of the internship model program are proposed. Two programs might be especially planned to capitalize on the unique characteristics and specialized expertise available at each placement site. Forty interns and intern candidates plus 4-6 mentors will gather to receive specialized training on grantspersonship and such other topics as statistics and research design and management. Interns from other programs will also be able to participate in such conferences.

Another approach for the second and/or following years of the program might be an intensive 1-2 week training institute in institutional research, planning, and evaluation.

Including these special workshops and seminars will greatly strengthen the total experience of training, networking, and research offered in the proposed internship program.

The exact nature of the placement site training experiences for the interns will vary from institution to institution. In certain circumstances, attendance at ongoing formal classes will be available, while at some sites special training programs will have to be arranged. Some placement sites will offer regular seminars designed especially for interns. Mentors will be instrumental in seeing that interns get the proper training in project management, research design, statistics, and other skills. Public presentation of research findings will provide another essential element of training.

Participant Responsibilities

The sponsoring organization should direct and coordinate the project. It is recommended that an advisory team composed of educational researchers, social scientists, administrators, and participants be headed by the Project Manager. An assistant project manager who will additionally serve as a research assistant will be required.

Based on information collected from successful internship programs, from the Feasibility Study in general, and particularly from the Senior Researchers' Working Conference, it is extremely important for those individuals and institutions involved to clearly comprehend and agree upon both their responsibilities and those of the other participants.

Sponsoring Organization

The responsibilities of the sponsoring organization are to:

1) Select an advisory committee of senior researchers to help guide and evaluate the program's progress.

2) Develop a survey of placement sites and their research activities.

3) Select senior researchers to serve as mentors.

4) Screen and select candidates.

5) Act as a broker between motivated candidates, including those from other fellowship programs, and institutions able/willing to accept them.

6) Design and negotiate contracts with placement institutions and meet with mentors to arrange for the actual mentor-intern matches.

7) Handle the general administration of the program.

8) Conduct initial orientation and final evaluation seminars for interns.

9) Organize complementary career seminars and skill training workshops with separate funding.

10) Carefully monitor the interns' progress, making certain that the intern-mentor match has been effective.

11) Counsel interns during the program, particularly if problems arise.

12) Follow up the program with a professional assessment of interns', mentors', placement institutions', and overall program's performance.

13) Maintain and augment the network among interns.

14) Give visibility to the program and its achievements.

15) Continue research on internship effectiveness with a longitudinal study of participants' and non-participants' career paths.

Placement Institutions

The responsibilities of placement institutions are to:

1) Contribute to the support of their interns through partial payment of stipend/salary and other financial benefits.

2) Make the actual payment of intern's salary/stipend, although the source of the money may be outside the placement institution.

3) Provide general support services, such as office space, telephone, secretarial assistance, library facilities, and computer time.

4) Give interns access to the institutions' regular staff or faculty and course offerings, as well as to offer other special training experience where appropriate.

5) Support mentors by release of some of their time.

6) Be willing to place junior faculty interns in functional jobs within the collegial or institutional mainstream.

Mentors

The responsibilities of mentors are to:

1) Meet with the program's sponsoring organization to arrange candidate selection and intern placement.

2) Participate in a coordinating meeting for mentors.

3) Instruct interns in the formulation of formal research proposals.

4) Guide interns by working with them, rather than simply supervising them.

5) Give interns the opportunity to gather experience and apply their skills in actual research and the management of research.

6) Provide a conduit to professional contacts at the host institution and elsewhere.

7) Show sensitivity to the special needs of minority and women interns and strengthen interns' confidence in their own talents and intelligence.

8) Offer some counseling, when needed.

9) Submit to the sponsoring organization a final evaluation of the intern and of the mentor's experiences with the program generally.

Interns

The responsibilities of interns are to:

1) Commit themselves to working with a mentor on a research project for one year.

2) Participate in orientation and training programs.

3) Produce a research "product," if possible in publishable form, and to present the research project's findings in a public forum.

4) Be willing to take the initiative in designing and maintaining their own internship experiences.

5) Attend professional meetings.

6) Keep a log of activities and give the sponsor a final evaluation of their experiences in the program.

Evaluation

Though an advisory group will aid in assessing the program, the principal responsibility for evaluation will remain with the sponsoring organization. A comparative study of the model program at each placement site is recommended annually and at the completion of the three-year project. A period for gathering feedback from interns, mentors, and host institutions has been incorporated into the program design. Because of the individualized nature of the internship experiences offered, a case study format will be used. The overall evaluation will focus on such aspects of the program as mentor and intern experiences, effectiveness of the matching procedure, the value of the research done, the sponsor's own brokerage and administrative role, negotiations with placement sites, the impact of the program on host institutions, the general satisfaction level of all concerned, and the program's overall goal attainment. Special attention will be given to any unexpected outcomes of the program.

In addition to their participation in a final evaluation seminar, interns will be individually asked to formally assess their own experiences in light of their original statement of objectives. This will supplement information from the logs that interns will be asked to keep throughout the program. The sponsoring organization must rely primarily on the mentors for an assessment of interns. The advisory group will help evaluate the interns' final research reports.

The results of the entire evaluation process will be used to revise and pilot the model program for the following year.

Dissemination

The tested and evaluated internship model and programmed materials will be disseminated through a variety of channels identified by the different institutions, researchers, and participants involved in the program. Possible channels of dissemination include Division H (School and Program Evaluation) of AERA, state education departments, and centers and institutes of research. Both the sponsoring agency and participants will present papers at professional meetings and plan to publish articles on their work.

The sponsoring organization may produce a special brochure that includes, besides a general description of the program and an evaluation of its performance, a directory of past interns together with comments by them concerning their personal experiences in the program.

CHAPTER VI

SUMMARY

Feasibility Study

Recognizing that minorities and women are at present underrepresented in the field of educational research, the National Institute of Education (NIE) funded HERS Mid-Atlantic during 1977-78 to determine the feasibility of establishing a research training internship directed toward women and minority junior faculty (assistant professors, lecturers, instructors) in the four-year colleges and universities in the Mid-Atlantic region. Results from all components of the Feasibility Study indicate that a general solution to the professional advancement problems of junior faculty is the establishment of a one-year research internship program combined with internal and external research skill training and extensive opportunities for both senior and peer professional networking.

Purpose

The Feasibility Study had a number of objectives that HERS Mid-Atlantic fulfilled: 1) locating and surveying junior faculty in the social sciences and education, 2) determining their training needs and interests, 3) surveying caucus representatives and chairpersons, 4) surveying and evaluating internship programs, and 5) involving senior researchers in the planning of the proposed internship model design. Additionally a number of other outcomes have been realized. A data base on women and minority junior faculty has been established that allows future research to be conducted on these persons. Second, the information gained from the Internship Identification Survey (IIS) permits publication of a resource book on available internships for interested persons. Third, contents of the Final Report will assist other groups and individuals planning similar or related internship programs. Details of the results from the Feasibility Study appear in Chapter IV, while a summary of these findings is presented in the next few paragraphs.

Results

Results showed a highly qualified group (N=458) of women and minority junior faculty was identified of whom 72.3% indicated a definite interest in participating in the proposed internship program. Analysis of the JFQ survey indicated the training needs most appropriately addressed are: grantspersonship, policy relevant research, evaluation and dissemination techniques, programming and computer use, and more complex statistical techniques. Respondents felt strongly about the need for adequate salary and other benefits necessary for participation.

Caucus representatives and chairpersons assisted in both identifying junior faculty and publicizing the Feasibility Study and proposed internship program. Their survey results were similar to the junior faculty's with one exception. Both caucus representatives and senior researchers emphasized the importance of training in the area of data collection and research design.

Results from the IIS, the third component of the Feasibility Study, supported the need, formerly established by HERS Mid-Atlantic and selected others, for a mid-career research training internship for women and minorities. The IIS also led to a number of important recommendations for the model program. Interns selected must be highly qualified and submit a research proposal to aid in the all important mentor-intern match. Adequate financial support for these interns is paramount, and a variety of ingenious funding methods is necessary. A one-year internship taking place in diverse research organizations with mentors committed to the professional advancement of interns, particularly minorities and women, is strongly recommended. Finally, special attention should be given to evaluation throughout the internship program.

The fourth component contributed much to the design of the internship model program. Attendance of outstanding social science and educational researchers at the Senior Researchers' Working Conference supplied HERS Mid-Atlantic with a talented group, many of whom are committed to serve in a variety of roles--as advisors to the sponsor on candidate recruitment and selection, as presenters at specialized invitational seminars, and as negotiators working to encourage their institution to accept an intern. The senior researchers' concern in working to increase the participation of women and minorities in educational research is apparent, as is their future interest in facilitating access to research networks.

Proposed Model

The proposed one-year research training internship model, based upon Feasibility Study results, is targeted for women and minority junior faculty in the fields of social science and education in the colleges in the Mid-Atlantic. As potential interns, these persons should be committed to research and interested in changing career emphasis or increasing their career options. This mid-career, postdoctoral program is meant to provide internal and external research training and an internship experience. The model brings the participants together at regular intervals for training, thus creating peer networks; gives them direct access to established senior social science and educational researchers who serve as mentors; and provides opportunities for the production and dissemination of their research.

Special features of the model include flexibility of components tailored to interns' needs, internal and external training,

diversity and quality of placement sites, and the brokerage activities--advising and career assistance--that the sponsor offers candidates. In addition to placement of approximately ten interns per year, 30 more intern candidates will receive training and be brought in contact with their colleagues and senior researchers. Thus the internship model encourages the pursuit of fresh educational research related to the special concerns of minorities and women and creates, with the help of committed mentors, a new network of researchers who can contribute to strengthening the quality, relevance, and credibility of educational research.

Significance of the Feasibility Study

A concerted effort is being made nationally to increase the participation of women and minorities in educational research and to assist in their advancement to key leadership positions. With the publication and dissemination of this Final Report on the feasibility of establishing a research training internship program, new information and research results are available, both concerning the training needs and desires of mid-career researchers and the characteristics necessary for a successful program. For those persons interested in either establishing a new training program or improving upon an existing one, this publication with a proposed model based upon survey results will be of direct assistance.

While the Feasibility Study was targeted to junior faculty in the Mid-Atlantic region, many of the results and the proposed model are adaptable to a variety of audiences. It is likely that the needs and interests of junior faculty in other areas of the country are similar to those in the Mid-Atlantic region. The IIS points out the common characteristics, strengths, and weaknesses of well established programs. Many of these points are useful whether the program be research oriented or focused on other dimensions such as administration and management, or science and policy issues.

Dissemination

HERS Mid-Atlantic intends to disseminate this report to a number of interested persons. The Final Report is taking on three different formats. The complete one, including all appendices, will be submitted to NIE. Another form, complete with the exception of the appendices, will be sent to:

1) all respondents of the IIS
2) individuals exploring the establishment of an internship program
3) senior researchers and their institutions who participated in the study
4) selected government agencies and foundations
5) state education department officials in the Mid-Atlantic region

6) individuals/institutions/professional organizations indicating an interest in the proposed program
7) other key individuals who assisted with the study
8) HERS Mid-Atlantic Advisory Committee.

The third form of the Final Report will comprise an abstract only, which will be mailed to all respondents of the Junior Faculty Questionnaire (JFQ). Since preparation of this report, approximately 25 additional requests for the JFQ have been received. These persons will be informed of the results and added to the list of potential junior faculty candidates. In addition, incidental inquiries from outside persons will be honored by sending them a copy of the abstract.

Recommendations and Future Research

HERS Mid-Atlantic recommends that an ongoing one-year research training program for women and minority junior faculty be established in educational research and that it be funded on a pilot basis for three years. An evaluation and research component should be incorporated as part of the model program to assess its effectiveness.

Now that a data base has been established on women and minority junior faculty in the Mid-Atlantic region, research studies concerning junior faculty can be undertaken. To make use of available data, a number of future studies in educational research are suggested. Data are available on institutional, personal, and background variables in addition to the research training, experiences, and desired training of these persons. Some interesting questions that arise are: What is the relationship among the type, sector, and size of the institution and the faculty member's responsibilities and the amount of time spent on research? Are these factors related in any way to the research conducted on issues of concern to women and minorities? Are any of the background variables, e.g., age, date degree conferred, minority identity, related to desired training and potential advancement in research and development?

The research results from a study of the mid-career internship strategy and training materials developed for the proposed program can be disseminated widely, thus increasing dramatically the number of persons affected by the model internship training program.

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